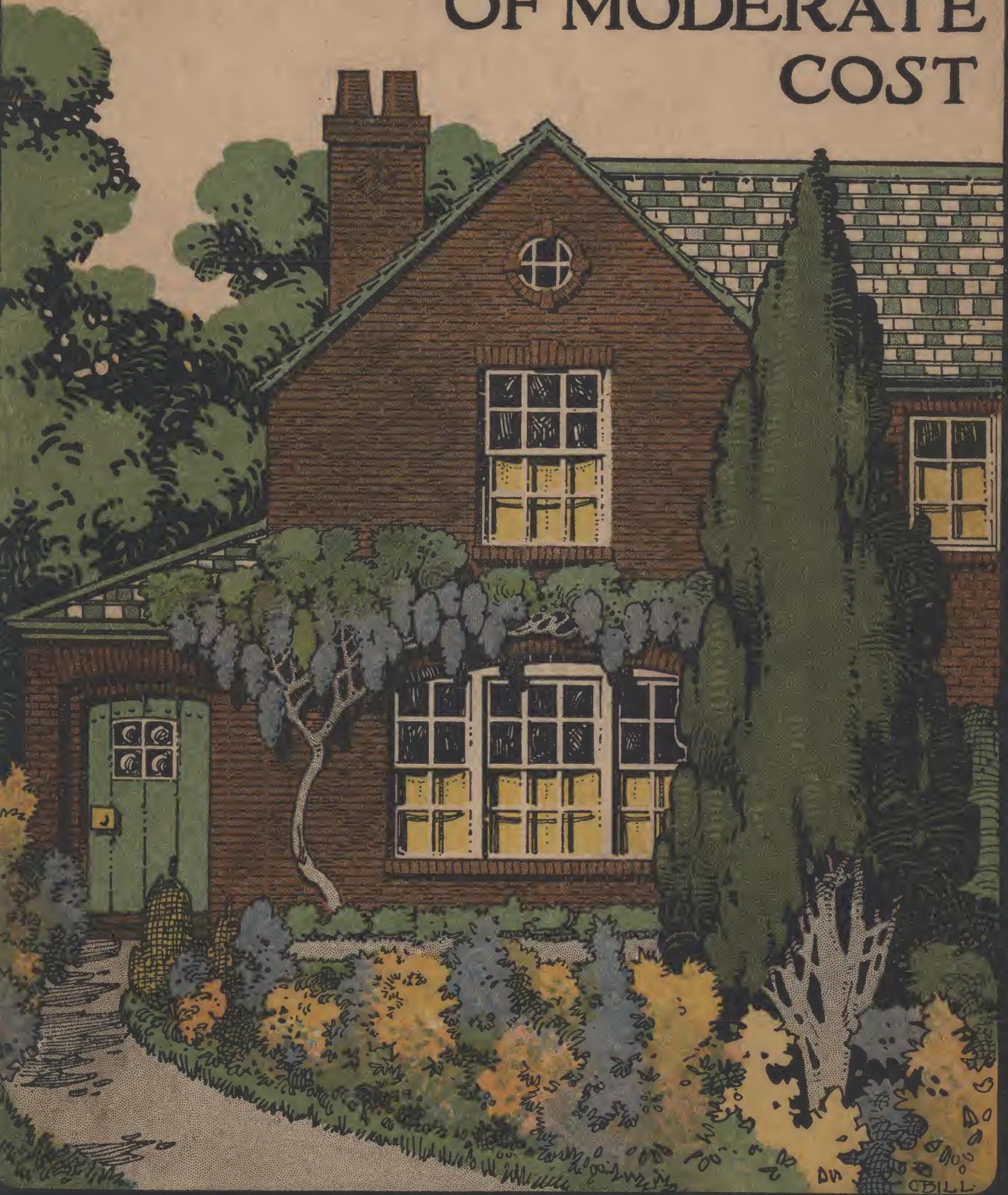


# The Hy-tex House OF MODERATE COST



PROPERTY OF ROBERT L. HARRIS · · ARCHITECT · · BALTIMORE ·

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T. B. AMISS, JR.,  
Sales Manager,  
305 W.  
BAL

# The Hy-tex House OF MODERATE COST

*A HOUSE OF BEAUTY  
GOOD INVESTMENT*

PRICE, FIFTY CENTS

HYDRAULIC-PRESS BRICK COMPANY  
SAINT LOUIS

COPYRIGHT, 1914  
BY THE  
HYDRAULIC-PRESS BRICK COMPANY  
SAINT LOUIS

## Introductory

A great deal of attention is being given at present to the problem of an inexpensive house for suburbs and outlying districts; and in general there is an evident desire to combine, where possible, low cost with a certain degree of picturesqueness. One cannot, however, make the picturesque offhand and to order; it is in a great degree a matter of time. The ancient cottages, which we admire now, were not built to look picturesque; they were built in what appeared, to their constructors, to be the most economical and convenient manner; and their present charm is the effect of time and association. Their low walls, high pitched roofs, and often abnormally small windows, taken to be picturesque, have been frankly imitated, so that we repeatedly see in new houses today these very low walls and very high pitched roofs. Although the windows are not so small as in the old cottages, yet they are much smaller than the best hygienic conditions would demand.

All these attempts are bound to fail of their object because they are palpably artificial and self-conscious efforts to be picturesque—mere imitations of the former manner of building. The low walls are an element of economy in cost, or supposed to be so; but the economy, in consideration of the large roof-space required, is perhaps over-rated. In any case, it is false economy because obviously not the best or most workmanlike manner of producing a convenient interior in a small habitation. The result in the upper story is far from satisfactory, as the rooms are sure to be cut up by the sloping ceilings into inconvenient sizes or shapes.

The practical manner of solving the problem must involve putting aside sentiment and acquired association and considering how best to build houses with the methods of construction and materials now available.

In recent years, owing to the increasing tendency on the part of the American public to have homes in the country or in the open parts of cities, there has been brought about a great demand for the house of moderate cost, which will have a certain character of its own, and which the owner may point to with a sense of pride as a home reflecting his tastes.

Believing that the prospective builder would appreciate seeing in sketch form and plan a group of houses of this character, which might suggest ideas that would aid him in consulting with his architect, the Hydraulic-Press Brick Company offers this collection of drawings. It was with the desire, not only to interest more of the best architects in America in this kind of creative work, but also to afford the intending home builder helpful suggestions in formulating his plans, that this Company recently

conducted a competition for a brick house through the medium of a widely known architectural journal, *The Brickbuilder* of Boston.

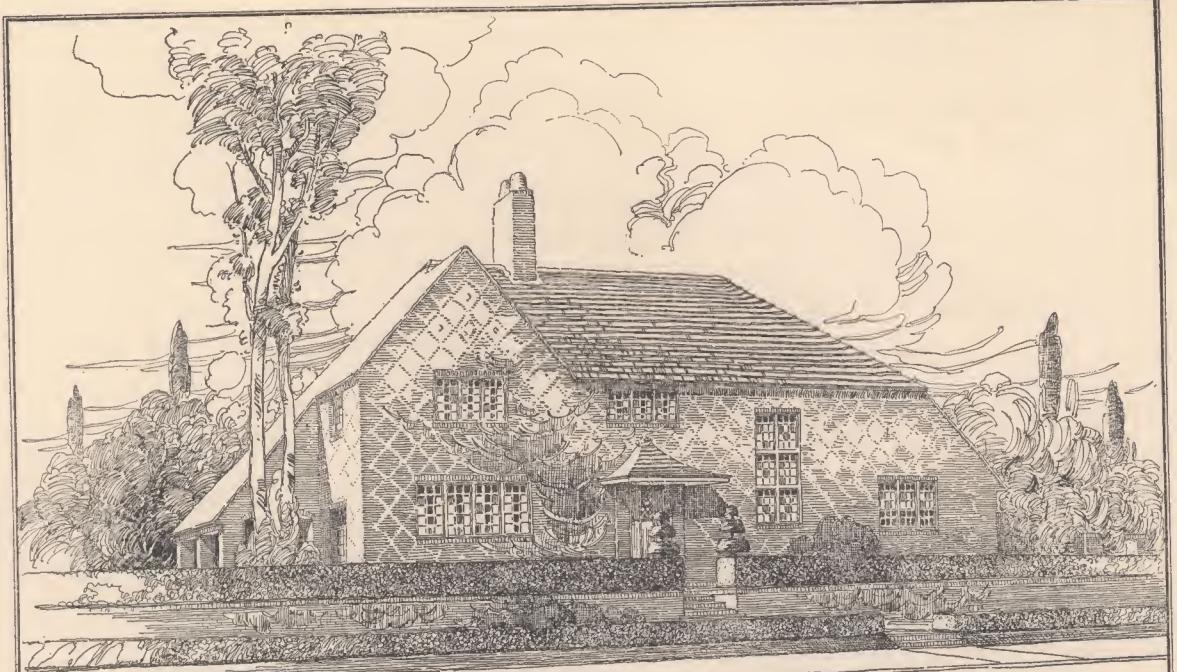
The architects who designed these houses worked with a definite program before them. The problem was a detached house, faced with Hy-tex brick, to be built complete at a cost not to exceed \$7500. Provision was to be made for the usual accommodations and conveniences for a small American family of moderate means. It was assumed that the house was to be located in a town, small city, or a suburb of a large city, on a level lot of any size or shape.

All the houses shown in this book were figured at the rate of twenty-two cents per cubic foot, which included cost of excavation, plumbing, heating, electric wiring, hardware and painting; although extravagance of individual taste for expensive interior trimming, plumbing, hardware, etc., may add appreciably to the cost. Porches and verandas were figured separately at one-fourth of their total cubage, provided they projected beyond the bearing walls, and at full cubage if included within such walls.

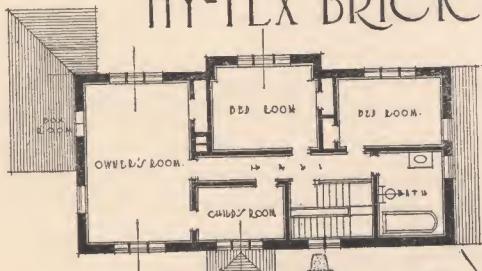
The jury of award was made up of five members of the architectural profession prominently connected with this class of work throughout the Middle West. First consideration was given to the design and its fitness to the material employed, and special attention to the floor plans. Nearly four hundred designs were submitted, and so general was the excellence of the work that the task of elimination and selection was no easy matter.

In presenting the following designs and plans, it is not expected that any one will commit the serious mistake of attempting to build his own house without the aid of an experienced architect. If he makes such an attempt, he may be assured that he will fall into confusion and difficulties that will both threaten the ruin of his plans altogether and run him into added costs. Technical knowledge and professional skill in the building of a house will not only secure higher artistic results, but save far more than the comparatively modest fee of the architect.

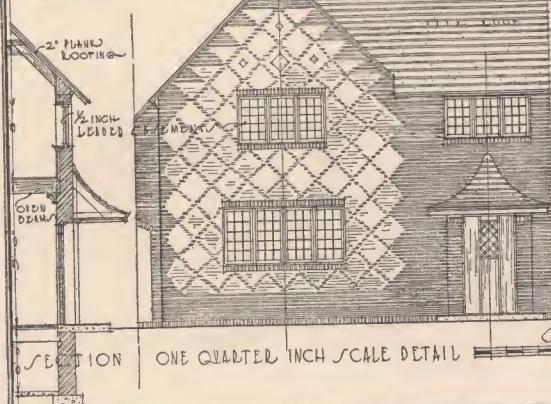
These plans will fully serve their purpose if they help to develop and give coherent form to the somewhat vague and indefinite ideas of the intending builder, when he first begins to plan a house of his own. With the belief that they will admirably serve this purpose, they have been published, and are now presented to the interested reader.



## HY-TEX BRICK HOUSE COMPETITION

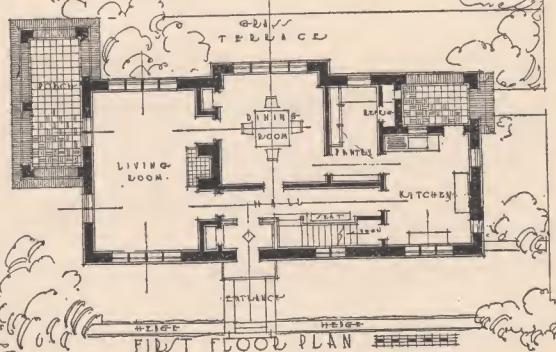


BRICKWORK - MIXED COLORS,  
BROWN HY-TEX - BOKHARAS FROM  
LIGHT RED THRU THE MAROONS AND  
COPPER & TO METALLIC  
DULL BLACK PATTERNS  
TO BE ONLY / LIGHTLY  
ACCENTED



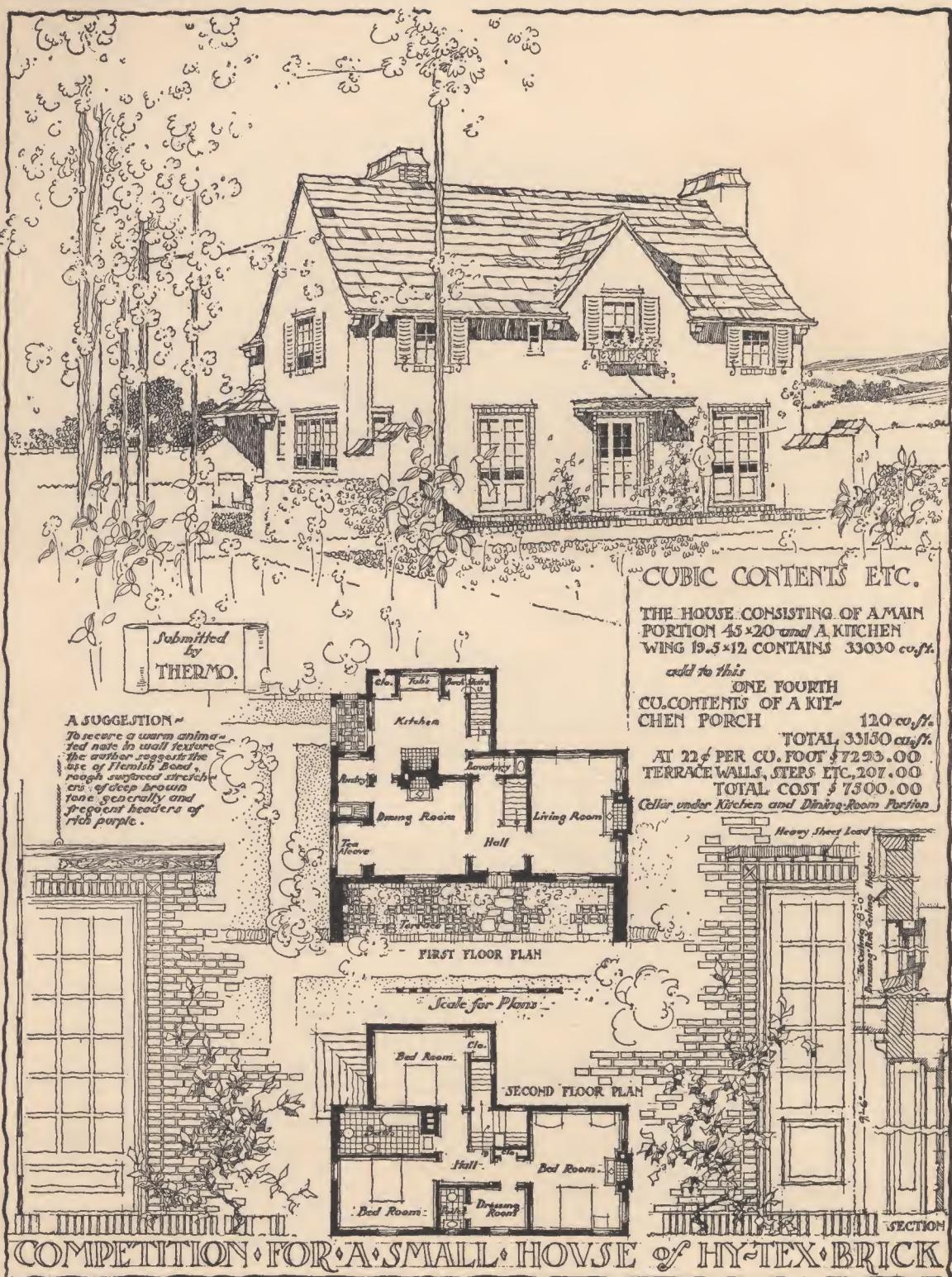
**THE CUBAGE**  
LENGTH OF HOUSE 50'-0"  
DEPTH 21'-6"  
HEIGHT - AVERAGE 28'-0"  
HOUSE FIGURED AT 22 CENTS/  
A CUBIC FOOT EQUALS \$6908  
DOLLARS PORCH 552.00 DOLLARS  
DAY WINDOW 184.00 DOLLARS  
TOTAL COST \$7444.00

SUBMITTED BY  
"BRICKBUILDER"



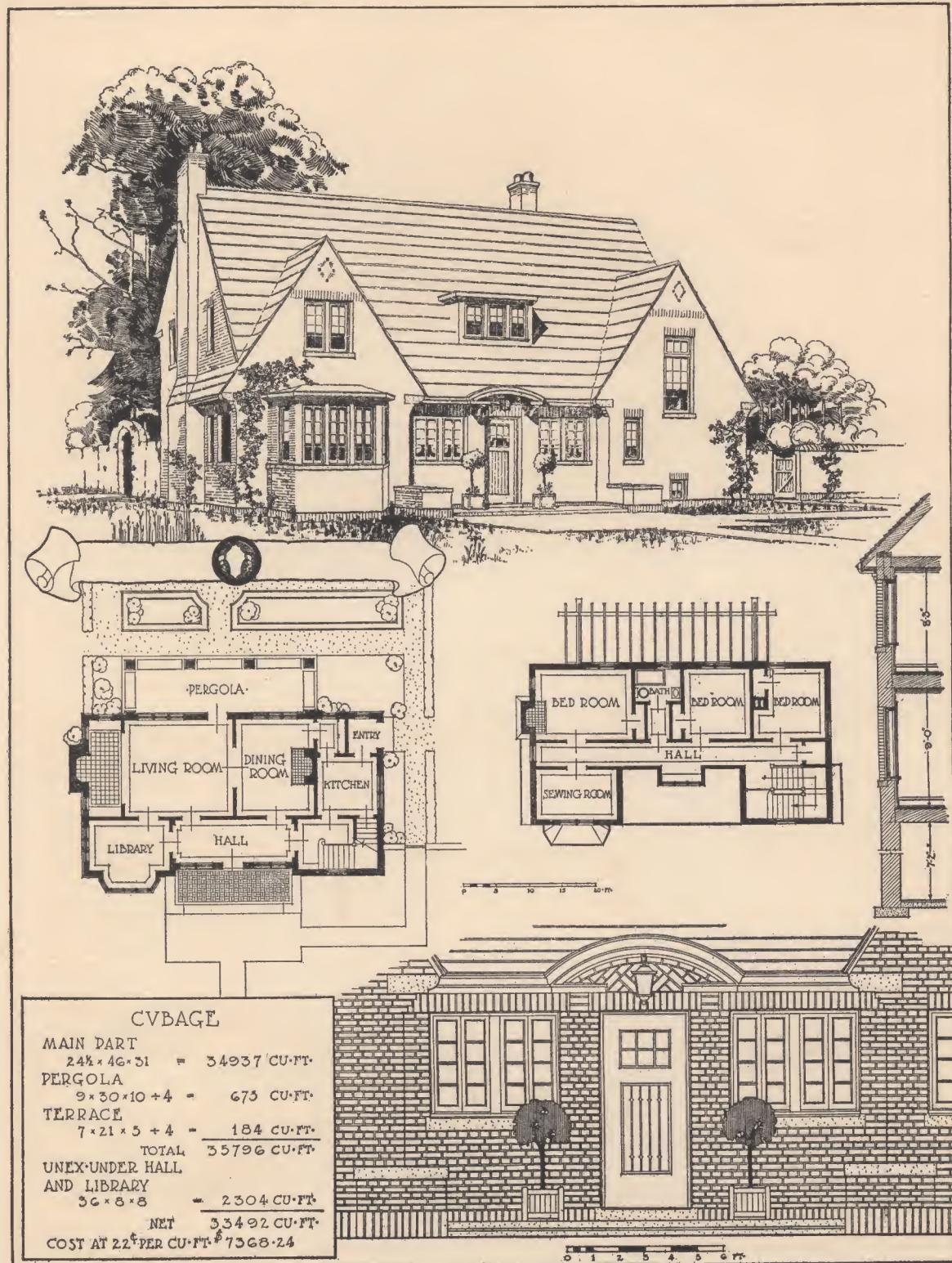
FIRST PRIZE DESIGN  
SUBMITTED BY I. P. LORD  
31 Beacon Street, Boston, Mass

The Hy-tex House



SECOND PRIZE DESIGN  
SUBMITTED BY RICHARD M. POWERS  
110 State Street, Boston, Mass.

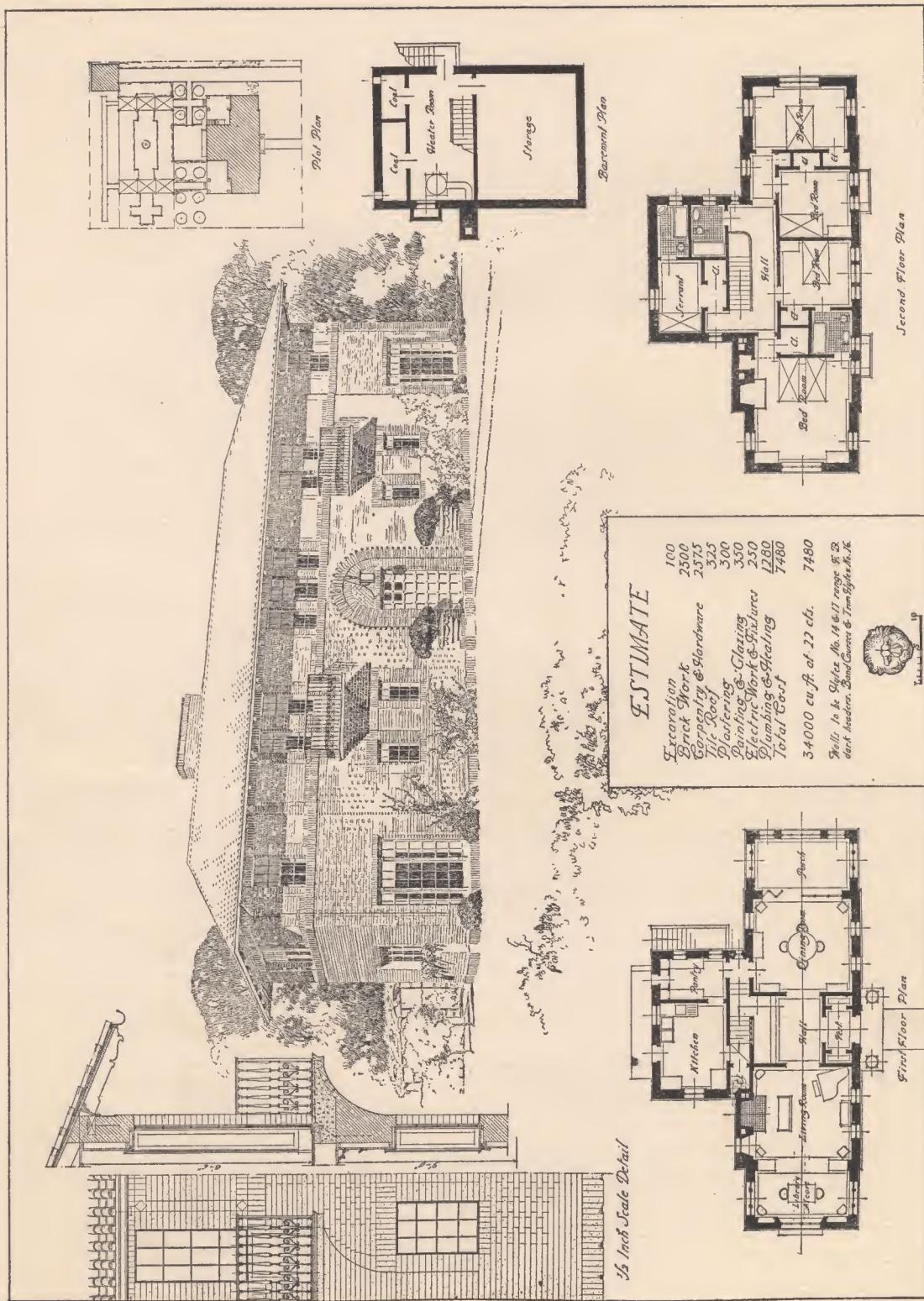
The Hy-tex House



THIRD PRIZE DESIGN

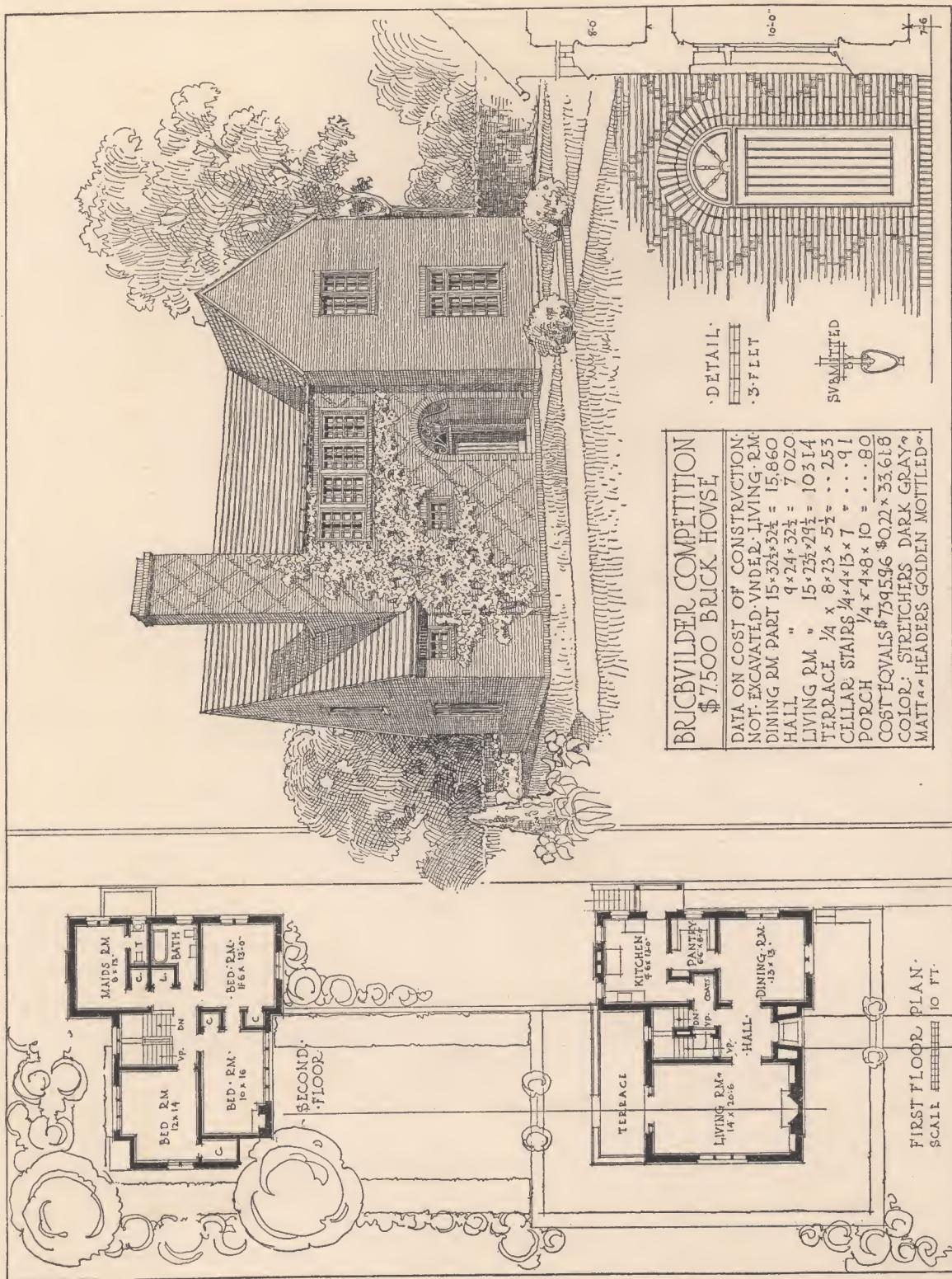
SUBMITTED BY J. F. MURPHY AND J. R. COLEAN  
810 Hubbell Building, Des Moines, Iowa

The Hy-tex House

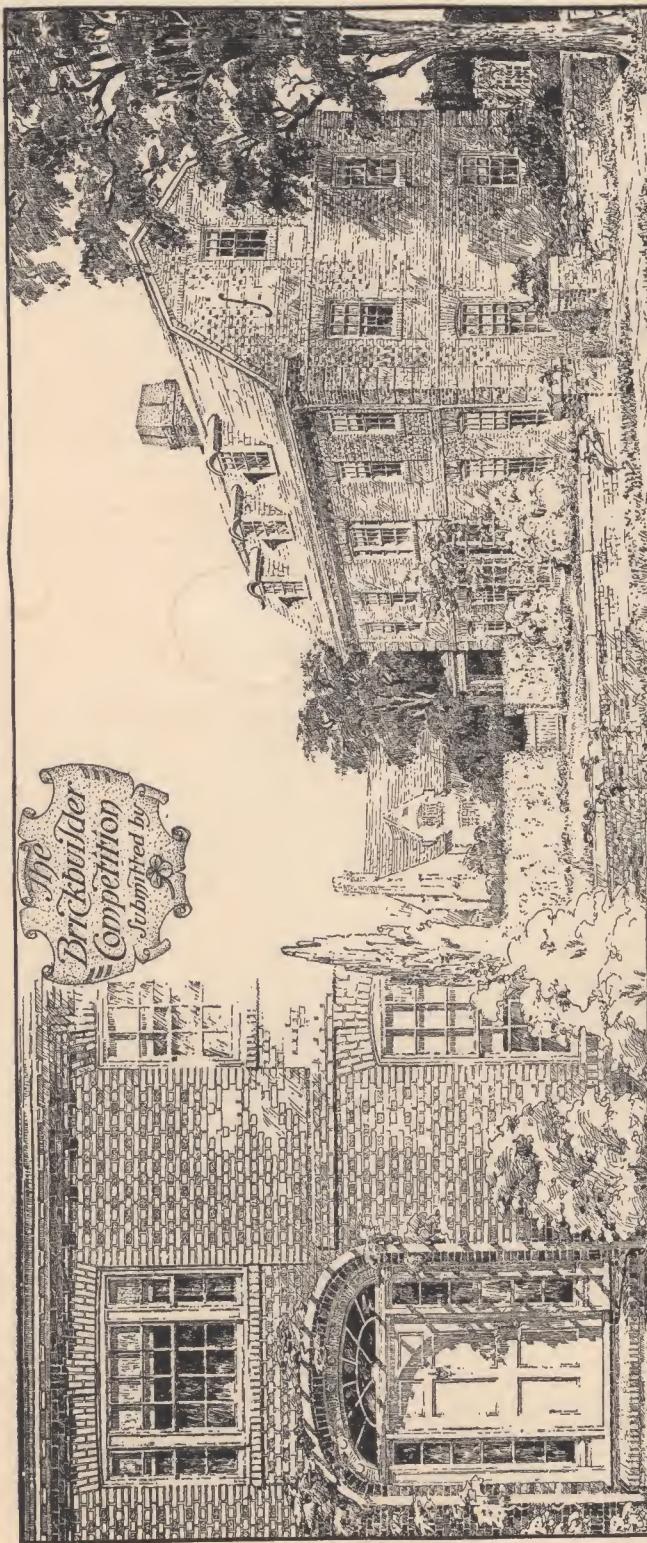


FOURTH PRIZE DESIGN  
SUBMITTED BY LELAND H. LYON  
7 East 4th Street, New York, N.Y.

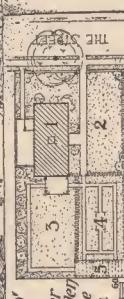
The Hy-tex House



The Hy-tex House



A HOUSE of HY-TEX BRICK to cost 7500 dollars  
 The Brick, Laid up in Dutch Bond to be Dark Colonial Red in Color, with Dated Burnt Headers, varying Blues, Blacks & Browns (shown on detail) alternating with Red. The Bole, Belts, Quoins, and all Window-Infraiments to be all of Red Brick.



*THE CUBIC CONTENTS & COSTS*

Area 22'-0" x 45'-6" = 1001 square feet.  
 As figured as per section 3 to  
 Making 5,032 cubic feet, & adding  
 Veranda, 11'-0" x 14'-0" = 162 9 cubic  
 Porch 6'-0" x 11'-4" = 165 5 making total  
 Total = 2,660 cubic feet, which  
 At 22 cents, would cost \$ 574.05. 20

Excavation \$ 140.00

Concrete Work \$ 100.00

Brickwork 2,700.00

Carpentry 2,250.00

Floors, outside & inside 290.00

Plastering, inside 340.00

Roof-Ridge Green Shale, laid 300.00

Copper Gutters, Border Roof 5.00

Painting 155.00

Hardware & Fixtures 220.00

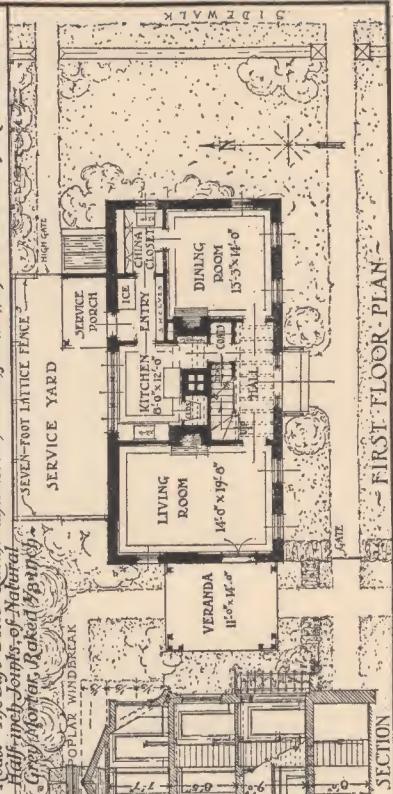
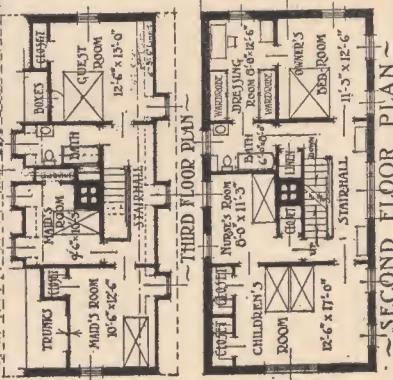
Heating 210.00

Plumbing 145.00

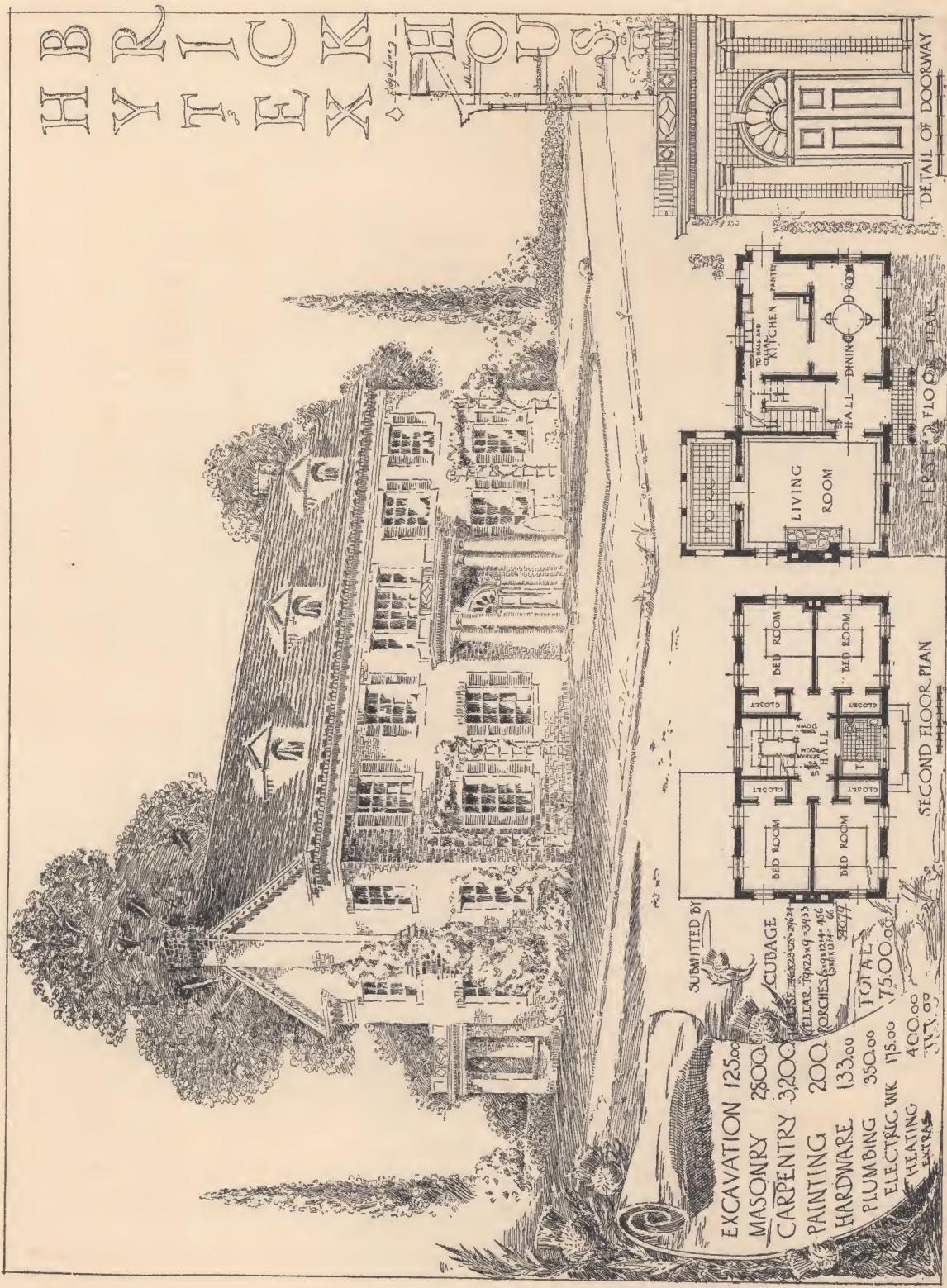
Electric Wiring 250.00

Lathes-Detials, etc. 250.00

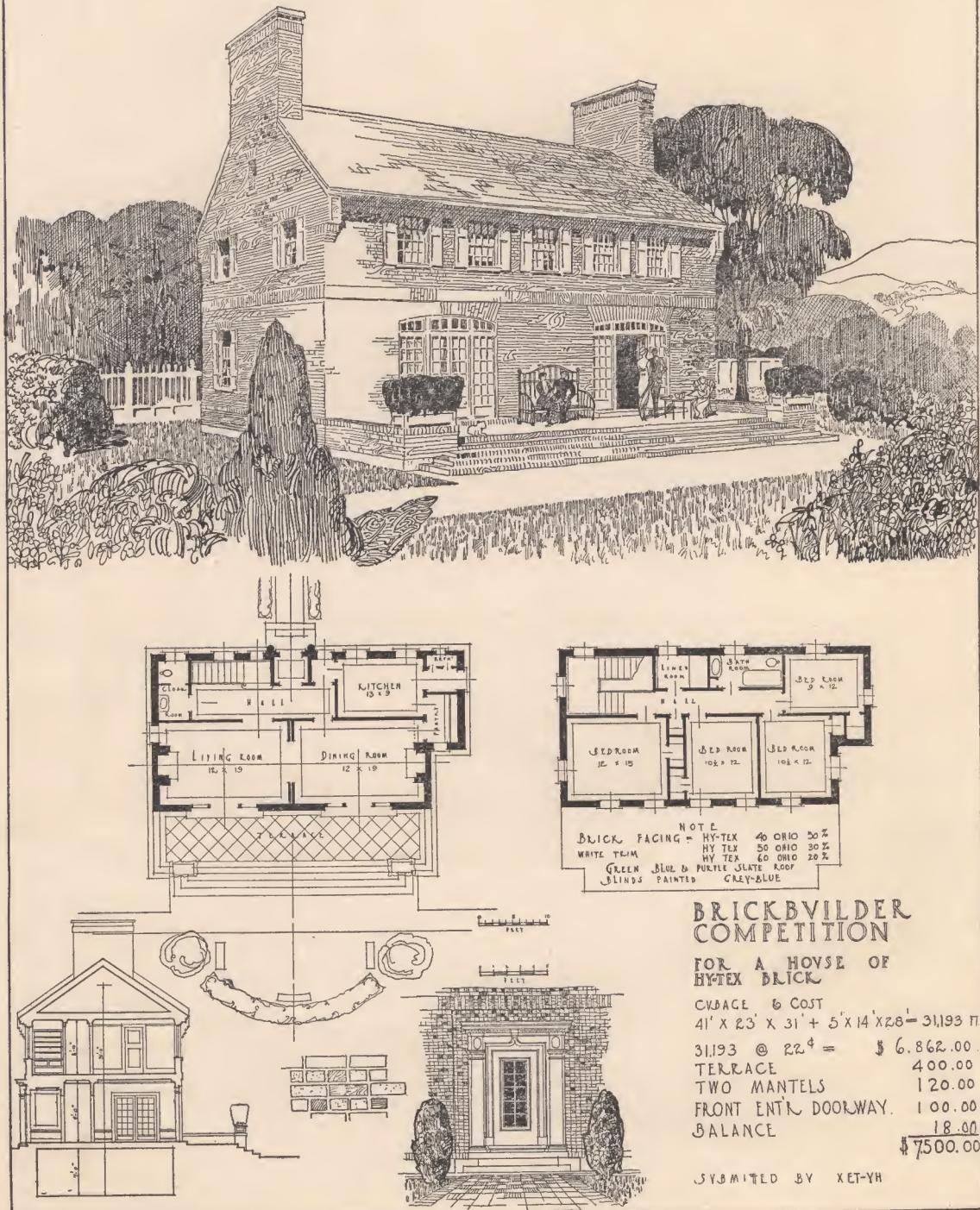
Total of all items ~ \$ 7500.00



The Hy-tex House



The Hy-tex House



MENTION DESIGN  
SUBMITTED BY DOUGLAS RITCHIE  
1 Belmont Street, Montreal, Quebec, Canada

The Hy-tex House

**SECTION DETAIL OF MAIN ENTRANCE**  
9' 4" 9' 9" 9' 5" FEET  
SCALE FOR DETAILS

**THE CUBAGE**

MAIN BUILDING	21' x 12' x 31' 5"	= 31671
KITCHEN WING	11' 6" x 13' 9" x 12' 3"	= 1935
POECH	8' 3" x 10' 9" x 11' 0" ÷ 4	= 448
TOTAL CUBIC CONTENTS	34054	
TOTAL COST AT 22 CENTS PER CUBIC FT.	\$7492	

**ITEMIZED ESTIMATE OF COST**

EXCAVATING	\$150
MASONRY	3050
PLASTERING	300
IVANIER, GARDENING AND HARDWARE	1000
MILL WORK	1600
ROOFING AND METAL WORK, INC.	250
PAINTING AND GLAZING	250
WARM AIR HEATING	350
FURNITURE AND RANGE	400
ELECTRIC WIRING	150
<b>TOTAL COST</b>	<b>\$7500</b>

**DESIGN FOR A BRICK HOUSE  
TO COST \$7500  
TO BE FACED WITH  
HY-TEX BRICK  
MANUFACTURED BY THE  
HYDRAULIC-PRESS BRICK COMPANY**

SUGGESTED BY TRISTRAM THOMAS  
FEB. 10, 1914

**SECOND FLOOR PLAN**  
SCALE OF 0 5 10 15 20 FEET  
SCALE FOR DETAILS

**FIRST FLOOR PLAN**  
SCALE OF 0 5 10 15 20 FEET  
SCALE FOR DETAILS

**THIRD FLOOR PLAN**

**ELEVATION OF TYPICAL WINDOWS AND CRACKS**  
SCALE IN FEET

**TRANSVERSE SECTION**

**NOTE**  
ALL FACE BRICK OF MEDIUM  
RANGE HY-TEX BLOCK AND  
ENGLISH BRICK ARE USED  
JOINTS ARE MADE WITH THE DARTING  
BLOCK AROUND THE WINDOWS  
AND IN THE ENDING ANGLES  
COVERED AS INDICATED

**BRICK PAVING**

**THIN  
TERRACOTTA  
Slate  
tile**

**WALLS  
STRUCTURE  
DRAWING BOARD  
OR BACK  
BOARD  
AND  
TILE BACKS**

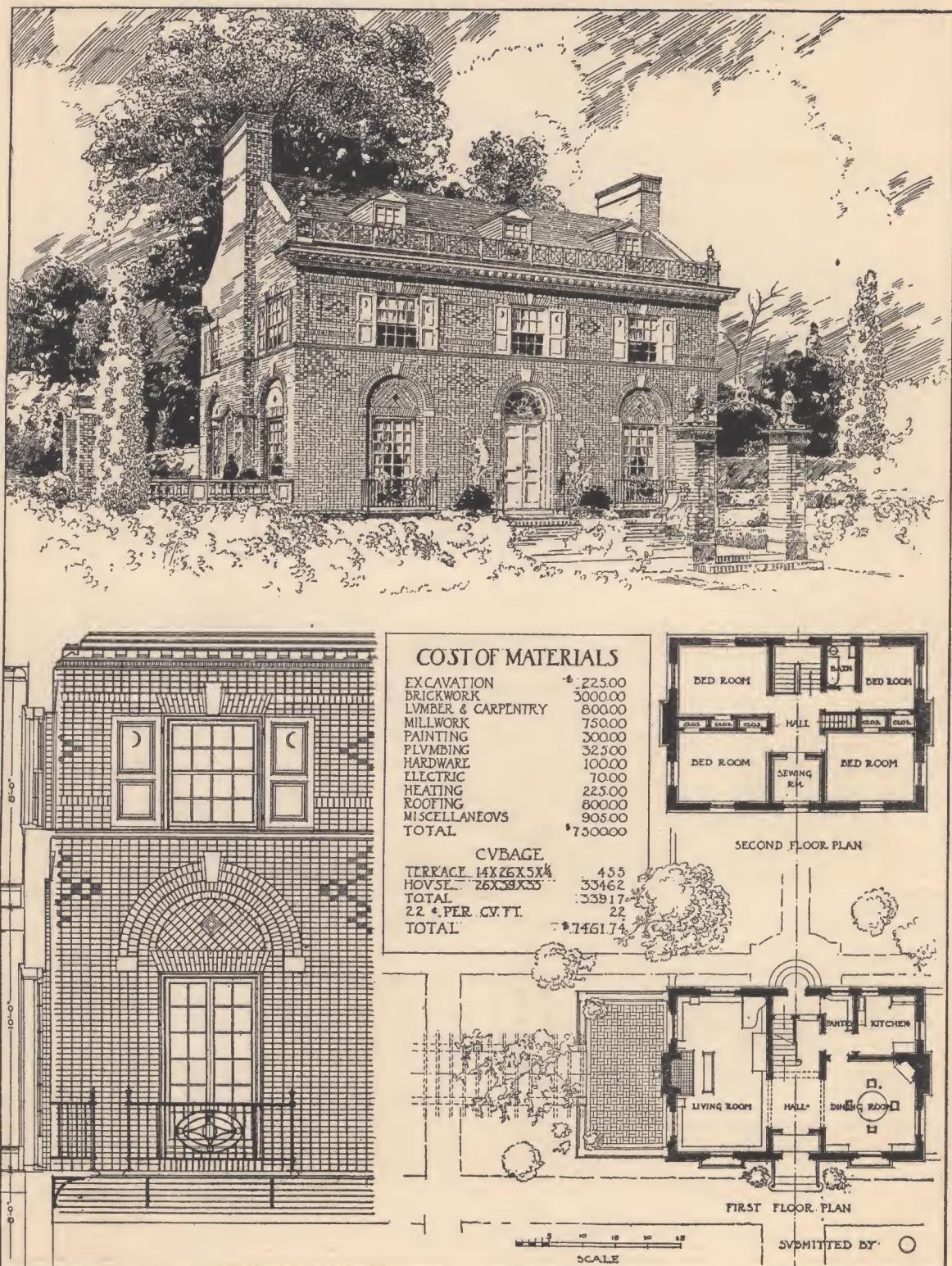
**WOOD  
ANCHOR  
BOSS**

**WOOD  
SILL**

**WOOD  
DOOR  
SILL**

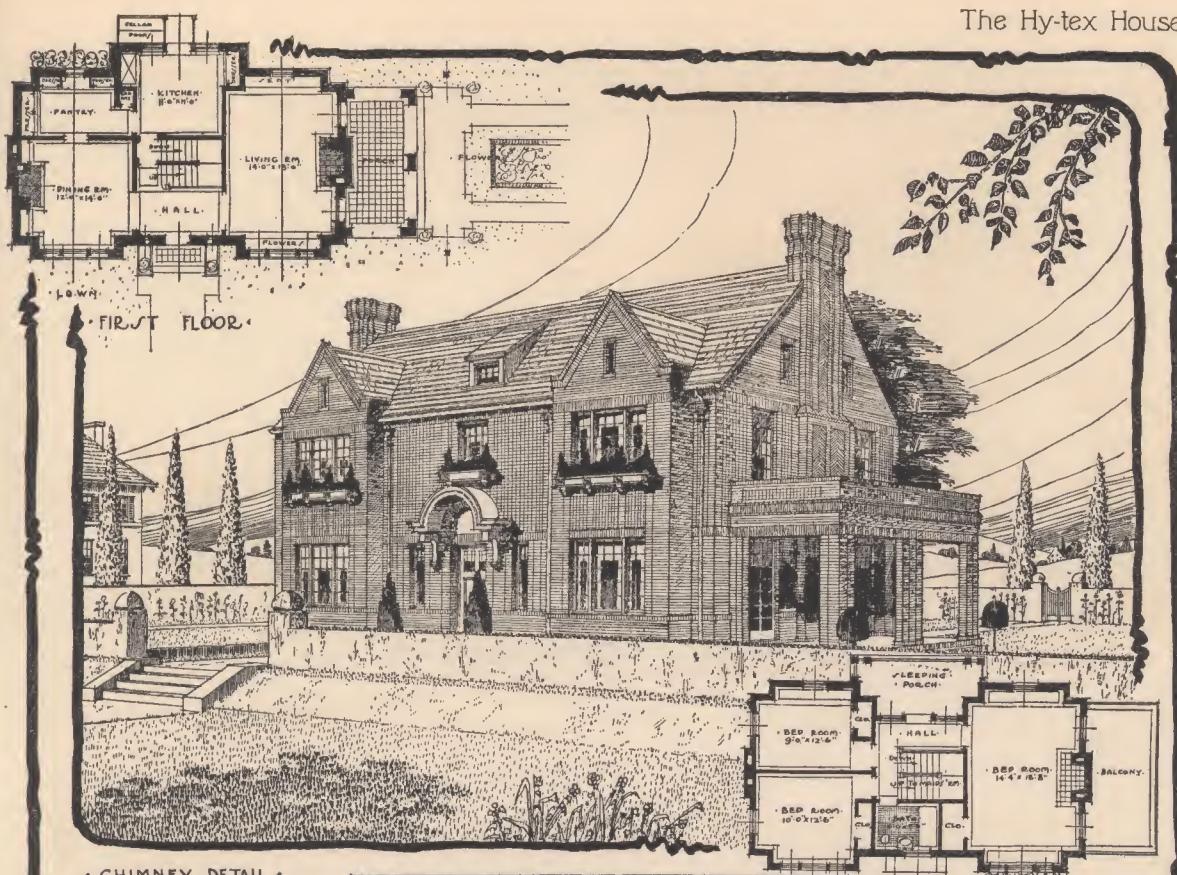
MENTION DESIGN  
SUBMITTED BY ALFRED COOKMAN CASS  
77 Washington Place, New York, N.Y.

The Hy-tex House

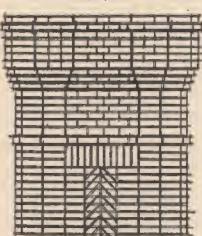


MENTION DESIGN  
SUBMITTED BY ANTONIO DI NARDO  
101 Park Avenue, New York, N. Y.

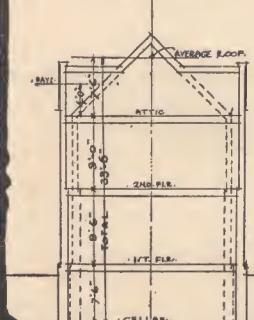
The Hy-tex House



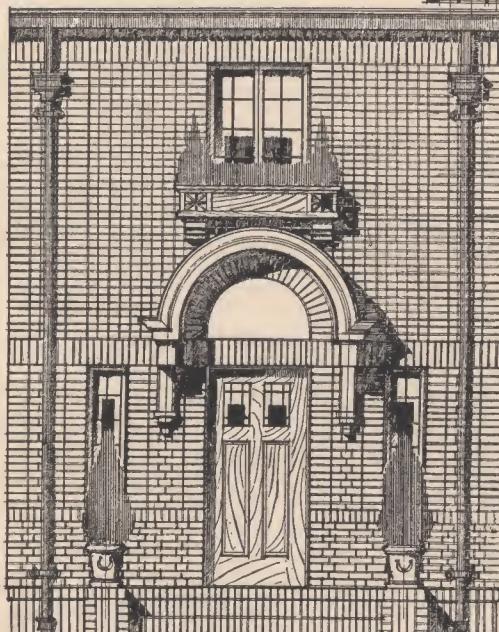
\* CHIMNEY DETAIL \*



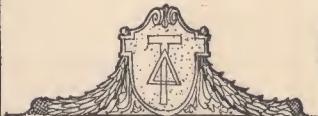
\* SECTION \*



\* SCALES \*  
\* PLANS \*  
\* DETAILS \*



\* SECOND FLOOR \*



\* CUBIC CONTENTS \*

MAIN BODY	$20' \times 42' \times 33'6''$	=	28,140
BAYS	$4(11'6'' \times 14'6'' \times 30')$	=	2,070
REAR PROJECTION	$18' \times 5' \times 33'$	=	2,970
PORCH	$(18' \times 10' \times 16') \div 4$	=	.720
AREAWAYS		=	,100

TOTAL CU. FT. 34,000

COST 34,000 CU. FT. @ .22¢ = \$7,480

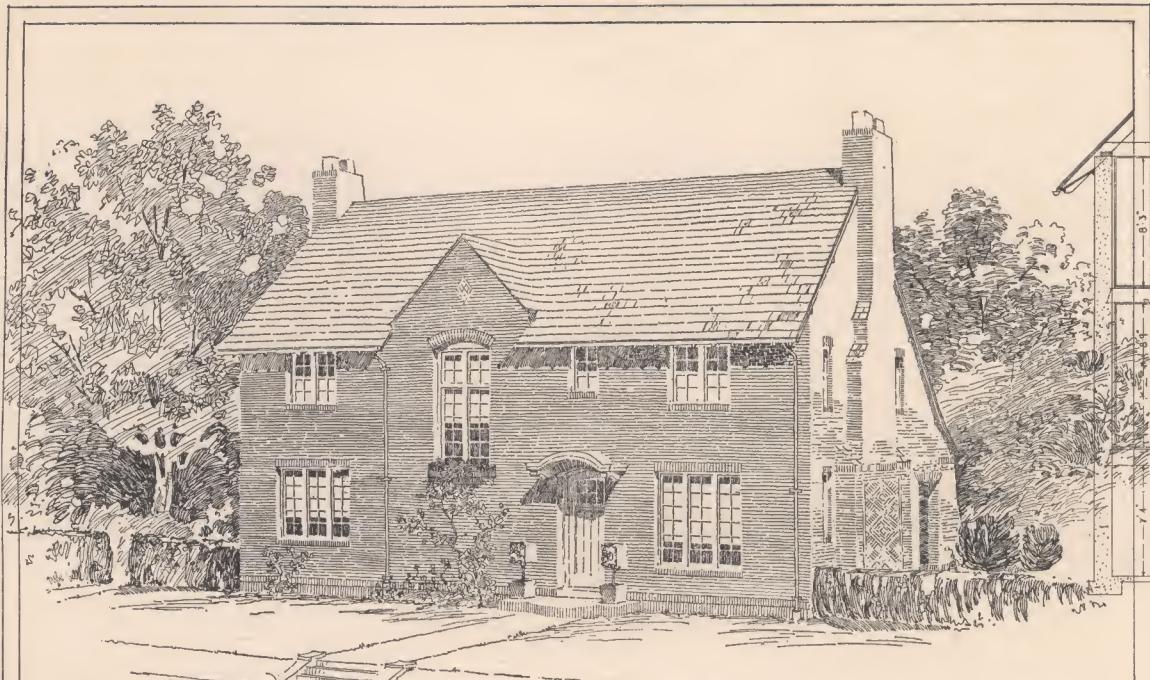
COLOR SCHEME: HY-TEX VELVET BODY  
COLOR: DIVERSE PATTERNS: LIGHTER SHADE,  
RAKED OUT JOINTS 1ST. STORY. FLUSH JOINTS  
ABOVE 1ST. FLO. WINDOW HEADS. WHITE MORTAR.

HY-TEX BRICK HOUSE COMPETITION

SUBMITTED BY

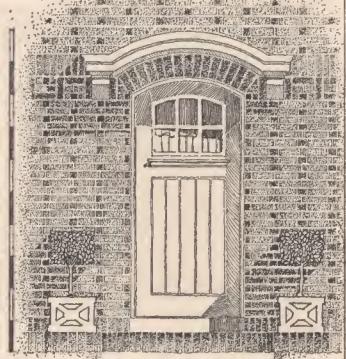
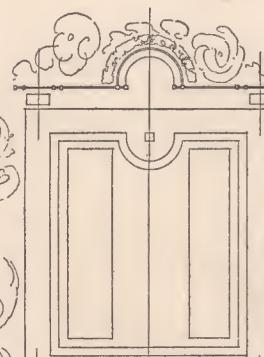
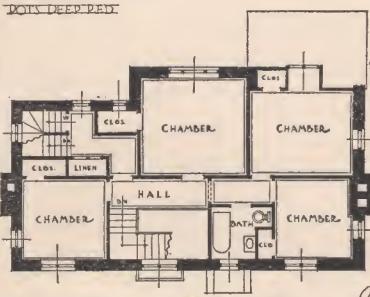
DESIGN BY FRED B. O'CONNOR  
232 B Ontario Street, Albany, N. Y.

## The Hy-tex House



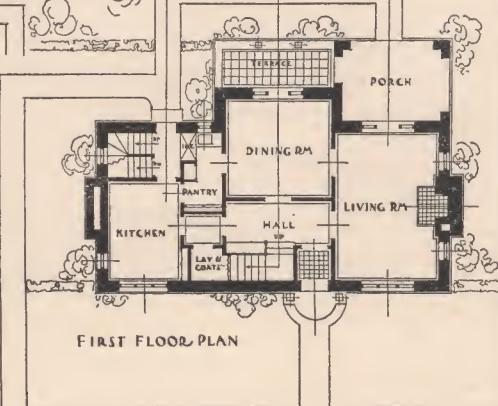
### COLOR SCHEME

BRICK LIGHT RED  
HEADERS & PATTERNS DARKER SHADES  
DOOR SILVER GRAY  
WOODWORK WHITE  
DOTS DEEP RED



**COMPETITION**  
FOR A  
**BRICK HOUSE**  
TO COST \$7500  
GIVEN BY  
**THE BRICKBUILDER**  
FEBRUARY 1914

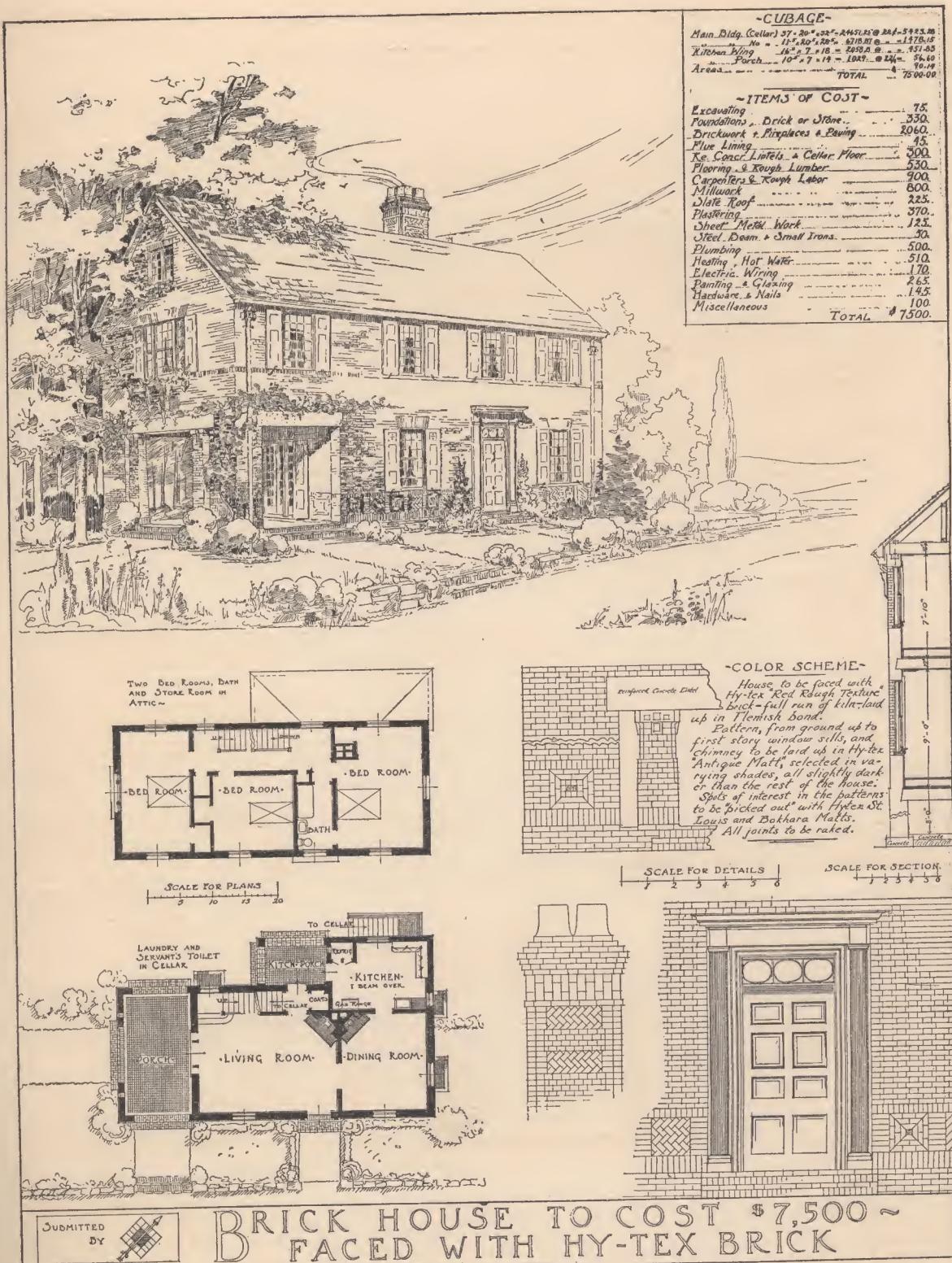
SCALE FOR PLANS  
SCALE FOR PERSPECTIVE & SECTION  
SCALE FOR DETAIL  
"HIS LAST ATTEMPT"



**NOTES:**  
CUBAGE IS FIGURED IN FOUR  
SECTIONS. MAIN BODY OF  
HOUSE 21X44X35 = 30442 CU  
FT. DINING RM PROJECTION  
4X16X33 = 2112 CU FT. PORCH  
10X16X15 = 4 = 306 CU FT.  
TERRACE 6X15X4 = 4 = 90 CU FT.  
TOTAL CU FT. 33200 X .22 =  
\$7,304.00 TOTAL COST WITH  
BASEMENT UNDER ENTIRE  
HOUSE:  
EXCAVATION & HEATING 650 PLASTERING 400  
MASONRY 2700 PLUMBING, 500 SHEET METAL 100  
LUMBER 900 WIRING 100 LIGHT FIXTURES 100  
CARPENTRY 550 HARDWARE 100 GAS PIPING 100  
MILL WORK 500 HARDWARE 150 PAINTING, ETC. 250

DESIGN BY WARNER A. EBBETTS  
6049 Catharine Street, Philadelphia, Pa.

The Hy-tex House



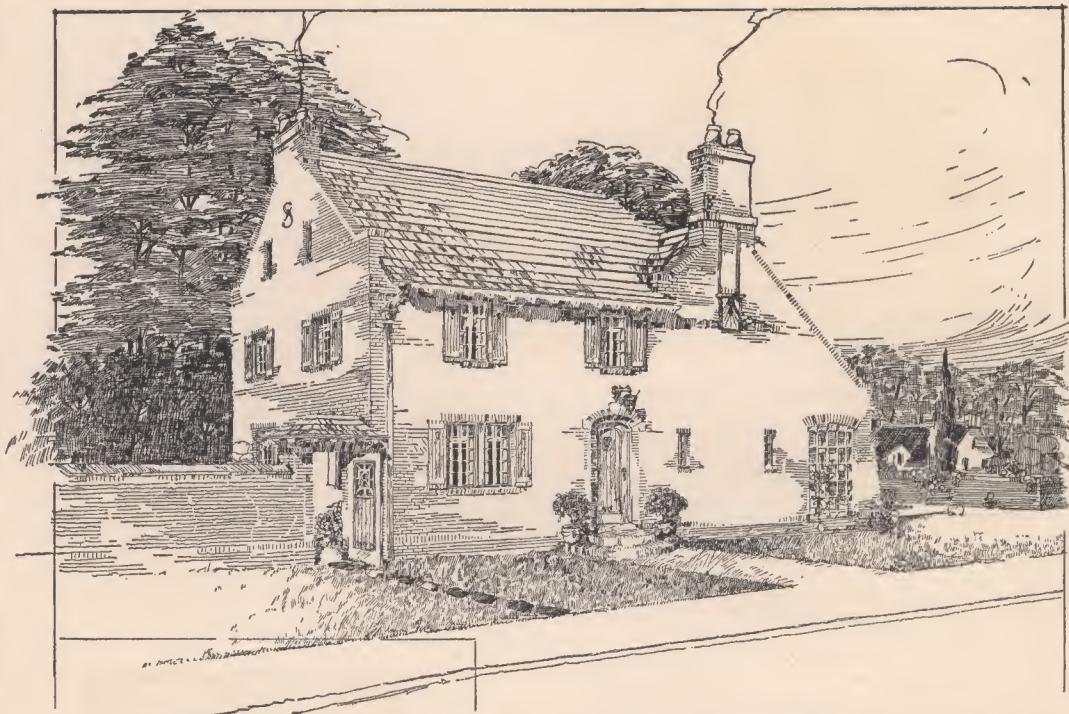
SUBMITTED  
BY



# BRICK HOUSE TO COST \$7,500 ~ FACED WITH HY-TEX BRICK

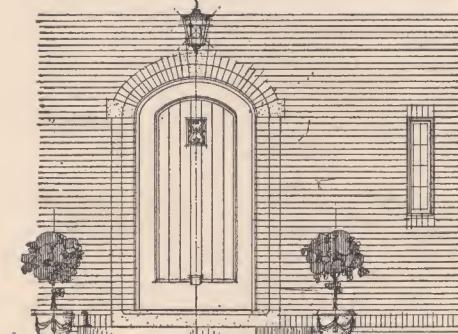
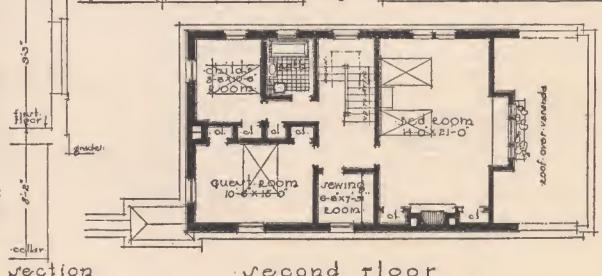
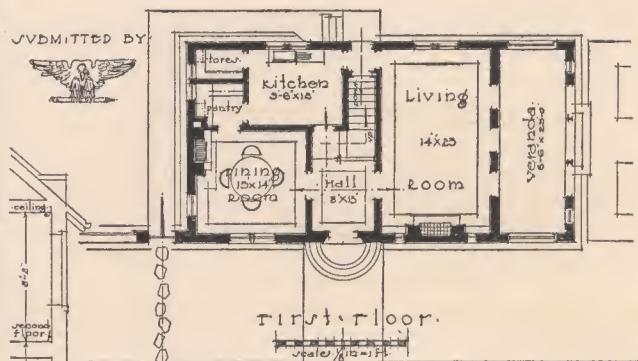
DESIGN BY BAYARD TURNBULL  
328 North Charles Street, Baltimore, Md.

The Hy-tex House



CUBAGED (HOUSE ONLY) 39'X25X32=32640  
 " VERANDA 25X10X14-4= 833  
 " TOTAL 33474  
 33474 cu ft @ 22 1/2 A CUBIT FOOT = \$7364.50  
 EXCAVATION = 15000 PLUMBING = 350.00  
 FOUNDATION = 45000 ELEC. WIRE = 150.00  
 MASONRY = 5500.00 ALLOWANCE = 200.00  
 CARPENTRY = 2500.00 MUSICAL = 200.00  
 HEATING = 200.00 TOTAL = \$7500.00

SUBMITTED BY



range of Dorkham bricks to be used. Bonded every four courses. One-half inch scale detail of front entrance section

**BRICKBUILDER**      **COMPETITION**  
**A BRICK HOUSE TO COST \$7,500**

DESIGN BY RALPH T. WALKER  
 1104 Franklin Street, Melrose Highlands, Mass.

The Hy-tex House

**EXTERIOR ELEVATION:** Shows a two-story house with a gambrel roof, multiple gables, and a central entrance featuring a decorative arched doorway. A large tree is prominent on the left side of the property.

**FIRST FLOOR:** Plan showing the layout of the ground floor. Dimensions include 38'-2" x 26'-30". Rooms labeled: KITCHEN (9'-6" x 10'-0"), BREAKFAST ROOM (4'-0" x 6'-0"), LIVING ROOM (12'-0" x 16'-0"), STAIR HALL, BED ROOM (9'-6" x 10'-0"), BATH (4'-0" x 6'-0"), and a PORCH (7'-0" x 10'-0"). An "ENTRY" is also indicated. A note on the left says "SUBMITTED BY" and "HEIGHT 'X' =".

**SECOND FLOOR:** Plan showing the layout of the upper floor. Dimensions include 14'-0" x 13'-0". Rooms labeled: BLD. ROOM (14'-0" x 13'-0"), BLD. ROOM (14'-6" x 16'-0" over bay), HALL, BATH (4'-0" x 6'-0"), and LINEN.

**ITEMS:**

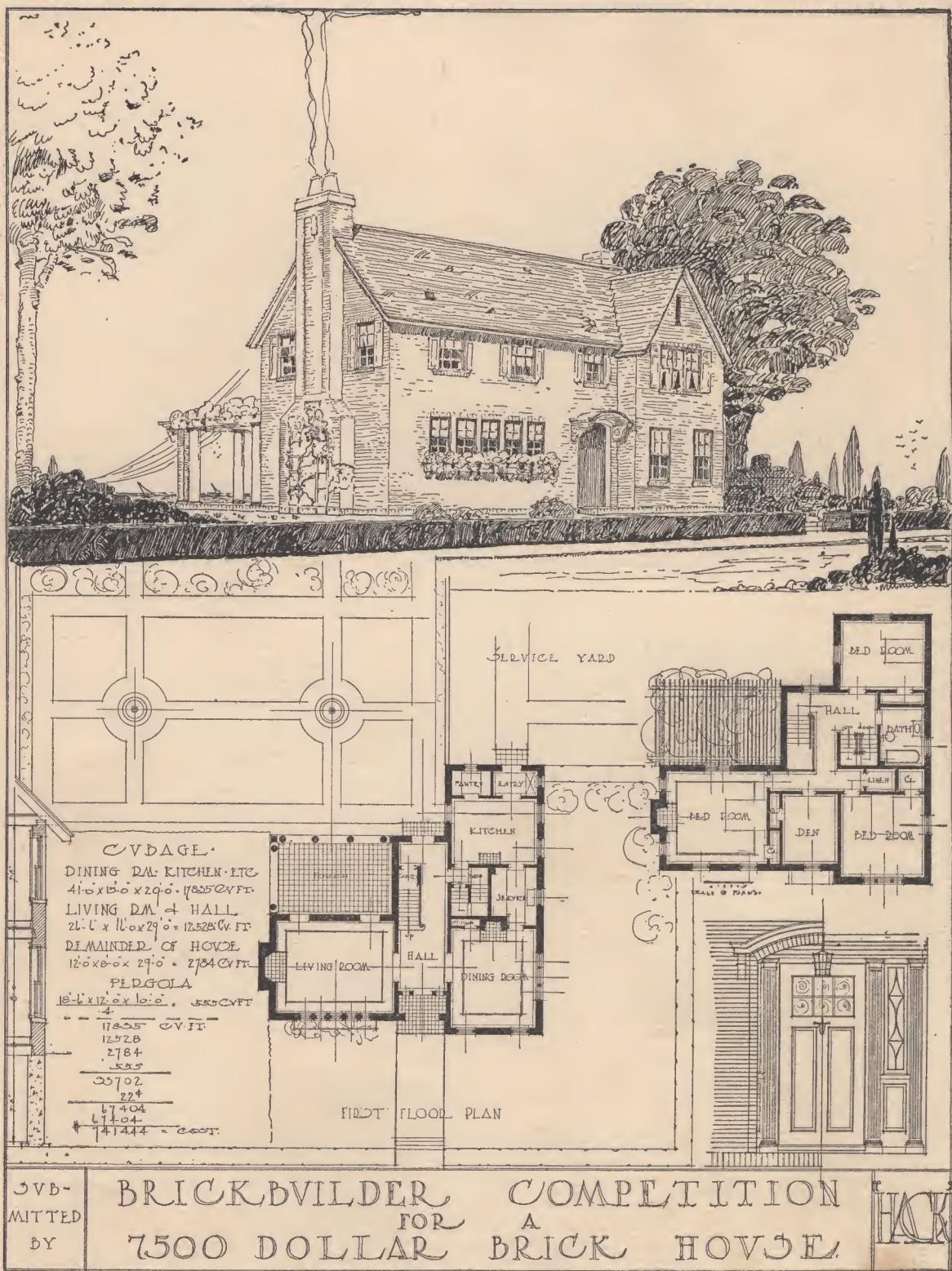
EXCAVATING	\$ 9.50
CONCRETE & CEMENT	4.50
BRICK	14.90
SHED METAL	9.50
SLATE	3.90
CAB. PANTRY	15.80
MIL. & STAIRS	10.15
PLASTER	3.00
PAINT, STAIN & GLAZING	4.50
HARDWARE & FIXTURES	1.80
PLUMBING	5.50
WIRING	1.00
MISCELLANEOUS	1.00
COMMISSION 10%	67.950
TOTAL COST	\$7474.50

**HY-TEX BRICK:** VARYING SHADES OF BROWN & RED - HEADERS OF DODGE FIELD TO FORM DIAGONALS IN GABLES.

**A HY-TEX HOUSE TO COST \$7500<sup>00</sup>**

DESIGN BY HENRY WILLIAM HALL  
408 Board of Education Building, St. Louis, Mo.

## The Hy-tex House



DESIGN BY JOSEPH G. McGANN  
111 Devonshire Street, Boston, Mass.

# BRICKBUILDER FOR 7500 DOLLAR COMPLETION A BRICK HOUSE

# COMPETITION A BRICK HOUSE

HACK

The Hy-tex House

*80ft lot*

**CUDICAL CONTENTS**

MAIN PORTION  
23'-6" x 42'-0" x 30'-0" - 29610  
KITCHEN PORTION  
7'-0" x 18'-6" x 30'-0" = 3885  
LIVING ROOM, PORCH  
23'-6" x 9'-0" x 10'-0" [25] 529  
TOTAL CUDIC FEET 34,024  
AT 22 CENTS A  
CUDIC FOOT  
EQUALS \$7,486.

SCALE OF PLANS  
5 10 15

COMPETITION FOR A BRICK  
HOUSE TO COST \$7,500

SUBMITTED BY.

Red Range  
Hy-Tex Brick,  
Flemish Bond  
Flush Joint  
1/2 Rough Cut  
Cream White

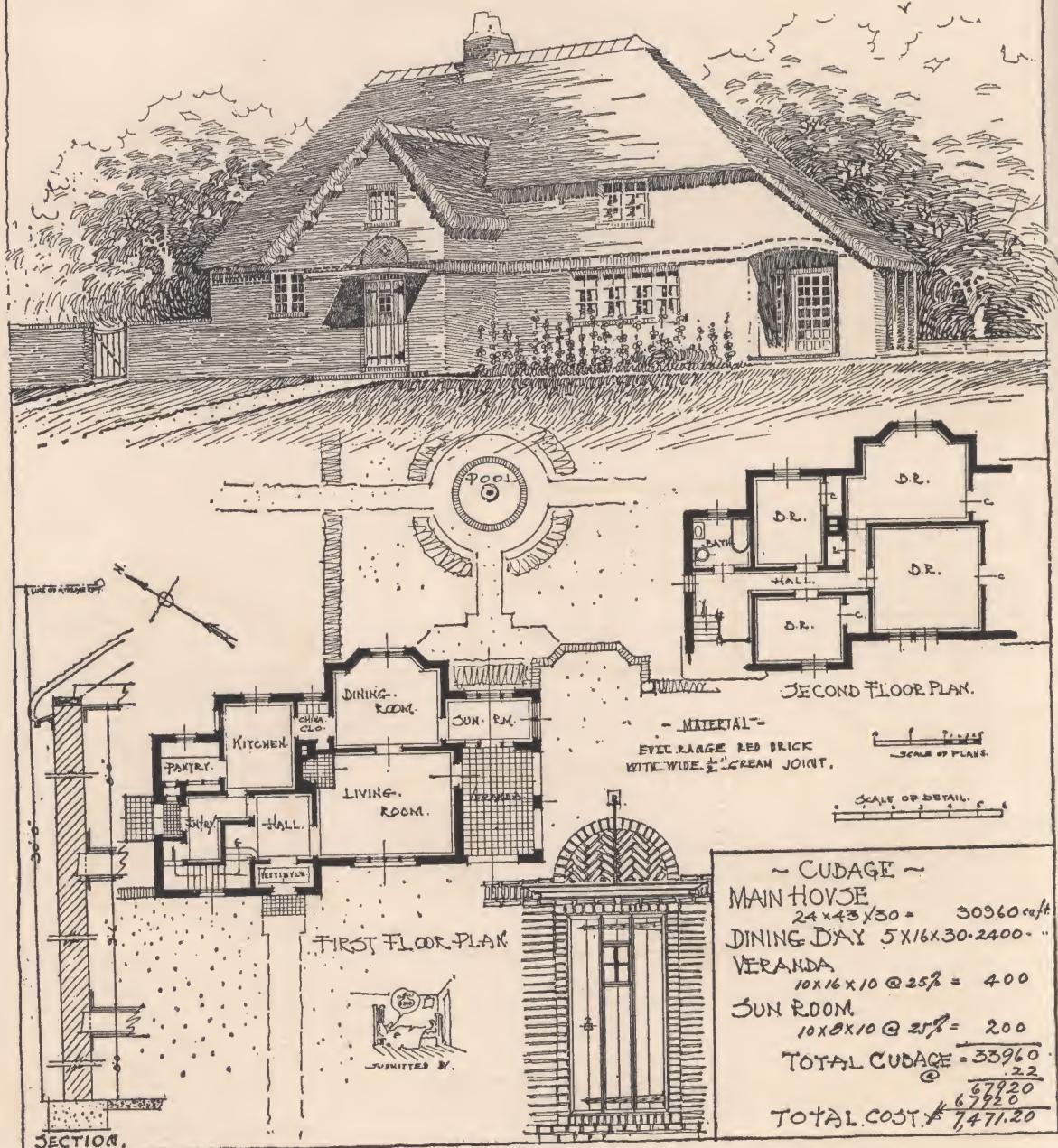
2nd floor  
1st floor  
basement

W ✓

DESIGN BY HENRY E. MCCLAY AND W. P. CALLAHAN  
93 Federal Street, Boston, Mass.

The Hy-tex House

**BRICKBUILDER - COMPETITION FOR A \$7500<sup>00</sup> HY-TEX BRICK HOUSE**



DESIGN BY CLARENCE B. HALL  
93 Federal Street, Boston, Mass.

The Hy-tex House

**FIRST FLOOR PLAN**

SECOND FLOOR PLAN

**CUBAGE**

	38 X 26 X 32	695.52
MAIN HOUSE	31616 CU. FT X 22 CTS.	
MAIN PORCH	(25 X 10 X 10) + 4 CU. FT X 22 CTS.	137.50
DINING PORCH	(10 X 10 X 10) + 4 CU. FT X 22 CTS.	.5500
KITCHEN EXT.	1500 CU. FT X 22 CTS.	.5300
<b>TOTAL COST</b>	<b>7478.02</b>	

**SUBMITTED BY**

\$ 7500. HY-TEX BRICK HOUSE

DESIGN BY AUGUST STEINKE AND OSCAR J. ARNEMANN  
101 Park Avenue, New York, N. Y.

The Hy-tex House

**CVBAGE & COSTS**

MAIN BODY OF HOVSE 35'-8" X 30'-6" X 30'-0" IN HEIGHT = 32640 CV. FEET  
 KITCHEN WING 15'-4" X 11'-0" X 14'-0" IN HEIGHT = 2366 CV. FT. TERRACE 28'-6" X 7'-6" X 3'-0" ÷ 4 = 153 CV. FT. SUBTRACTING 1600 CV. FT. FOR VNEXCAVATED PORTION VNDER LIVING ROOM VESTIBULE & COAT CLOS. EQUALS 33559 CV.FT. X 22 = \$7583.00 COST EXCAVATION 150 HEATING 650 PLASTERING 400 MASONRY 2700 PLUMBING 550 SHEET METAL 150 LVMBER 900 WIRING 100 LIGHT FIXTURES 150 CARPENTRY 550 R. HARDW. 100 GAS PIPING 100 MILL WORK 500 F. HARDW. 150 PAINTING ETC 250 \$ 100 ALLOWANCE

**FIRST FLOOR PLAN**

KITCHEN 8'4"-0" X 10'6"-0"  
 PANTRY 4'0"-0" X 5'0"-0"  
 ENTRAY 3'0"-0" X 4'0"-0"  
 LAV. 3'0"-0" X 4'0"-0"  
 HALL 10'0"-0" X 11'0"-0"  
 COATS 3'0"-0" X 4'0"-0"  
 DING. RM. 10'6"-0" X 12'0"-0"  
 PORCH 10'0"-0" X 11'0"-0"  
 LIVING ROOM 15'6"-0" X 20'0"-0"

**SECOND FLOOR PLAN**

DRESSING RM.  
 CHAMBER 10'0"-0" X 11'0"-0"  
 CHAMBER 10'0"-0" X 11'0"-0"  
 HALL 10'0"-0" X 11'0"-0"  
 CHAMBER 10'0"-0" X 11'0"-0"  
 CHAMBER 10'0"-0" X 11'0"-0"

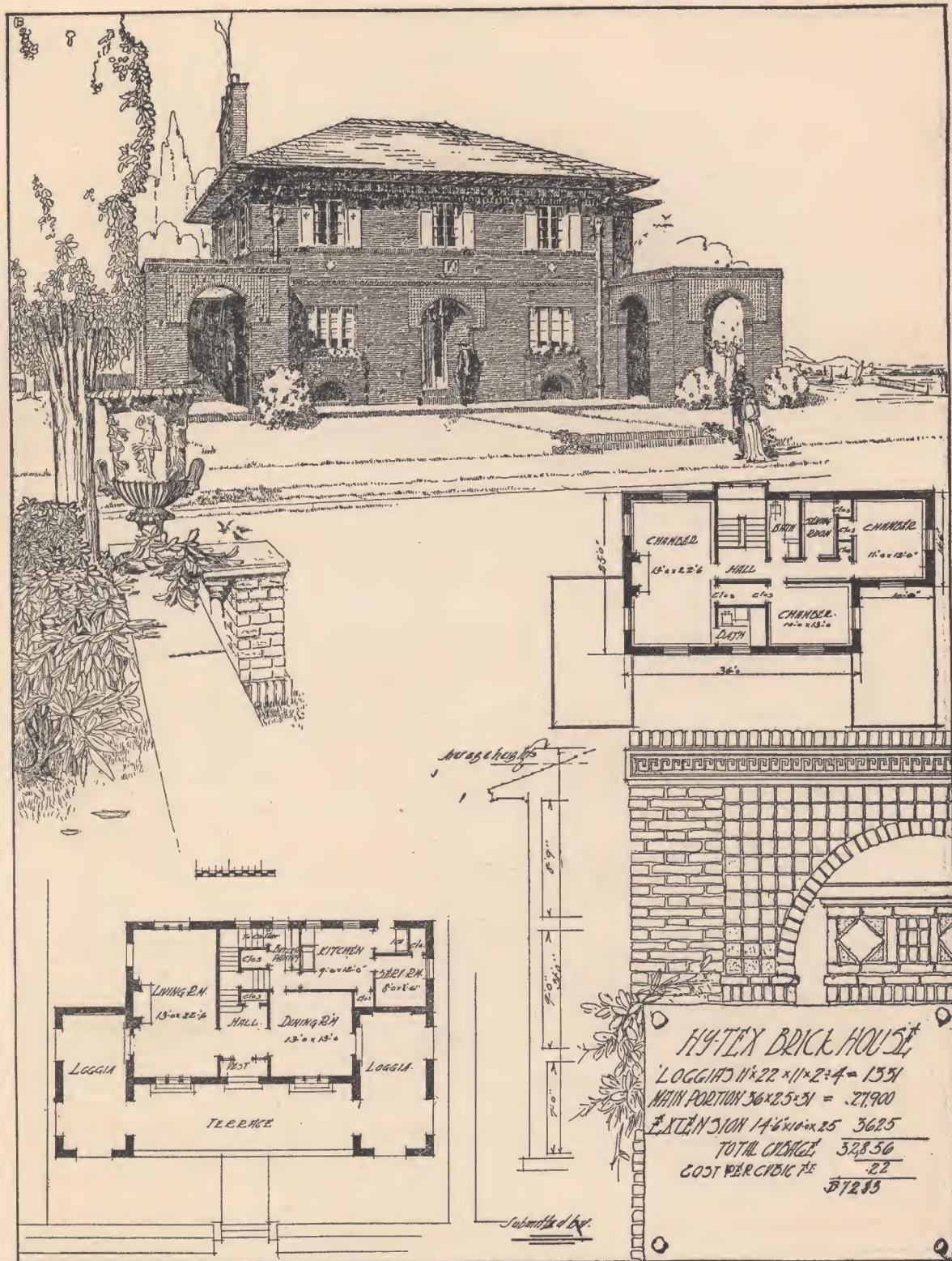
**COMPETITION FOR A HYTEX BRICK HOUSE GIVEN BY THE BRICKBUILDER**

SCALE FOR PLANS  
 BRICK TO BE LIGHT RED WITH ALTERNATE HEADERS OF THE DARKER SHADES SELECTED AT RANDOM. STRONGEST COLORS TO BE USED IN GABLE ENDS. ROOF TO BE SILVER GRAY. WOODWORK WHITE. WALLS OF LOCAL FIELD STONE.

FRONT ENTRANCE DETAIL

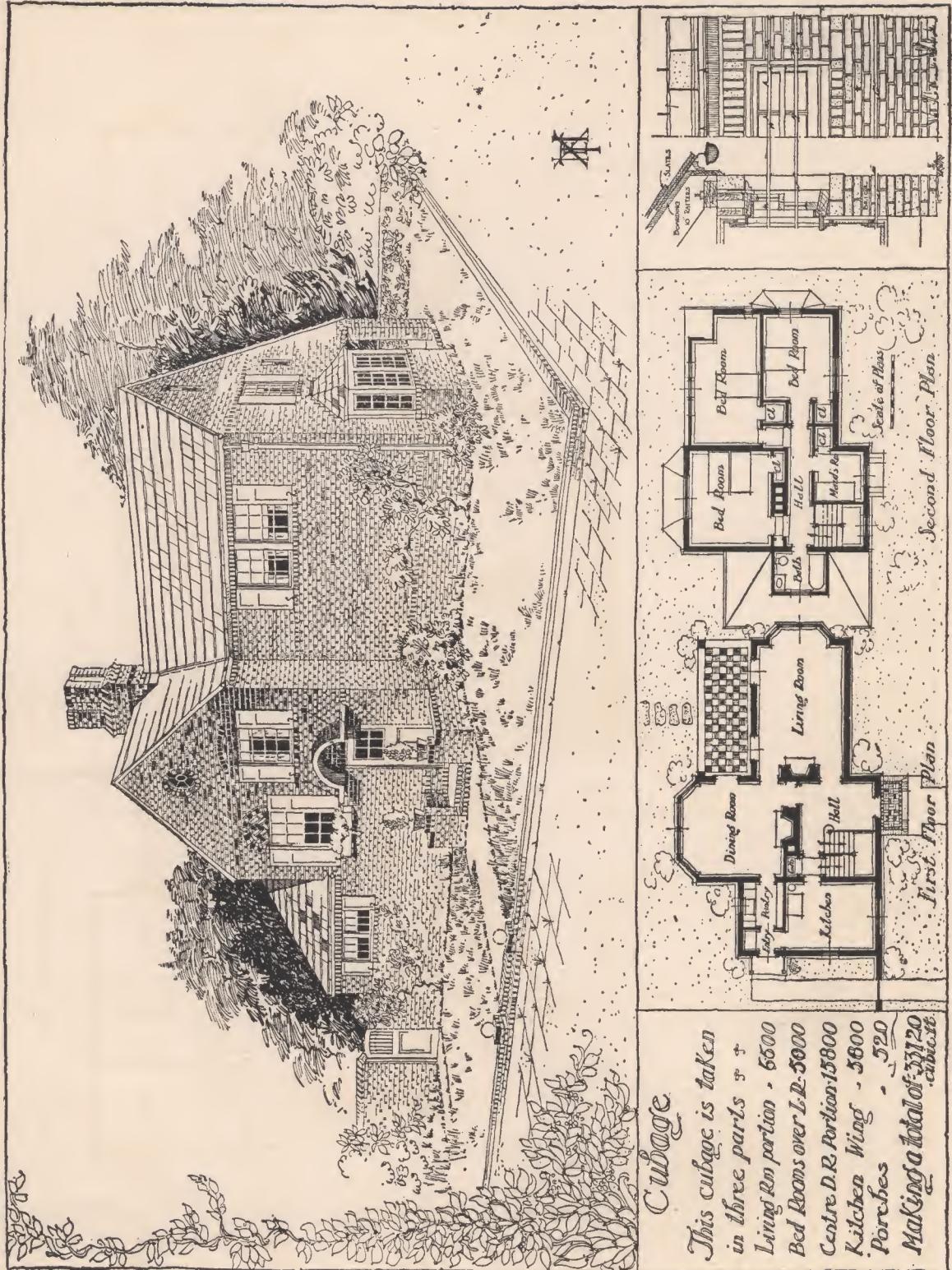
DESIGN BY LEWIS P. MACKENZIE AND WARNER A. EBBETS  
 5750 Pine Street, Philadelphia, Pa.

The Hy-tex House

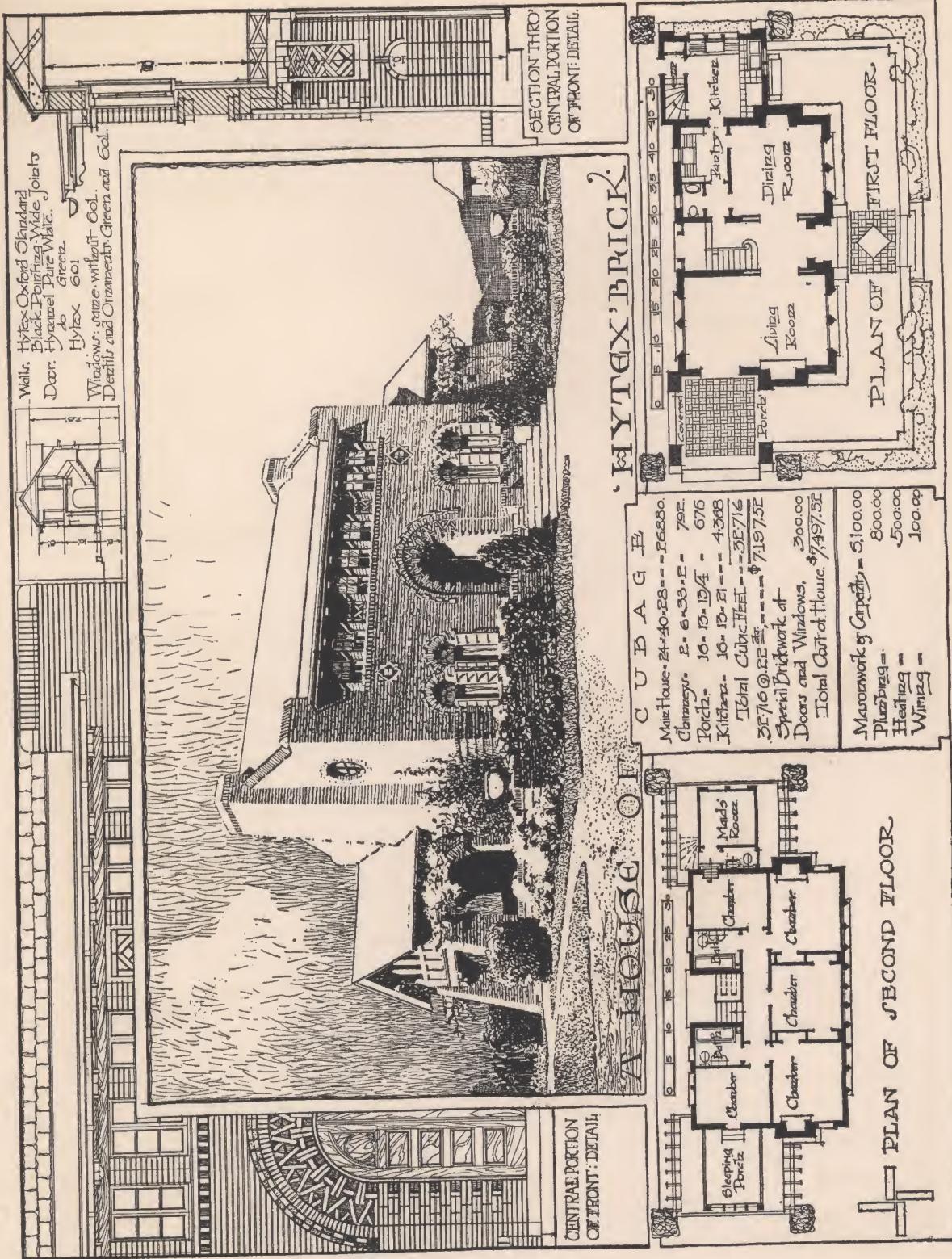


DESIGN BY EMIL H. KLEEMAN  
23 North 22d Street, Irvington, N. J.

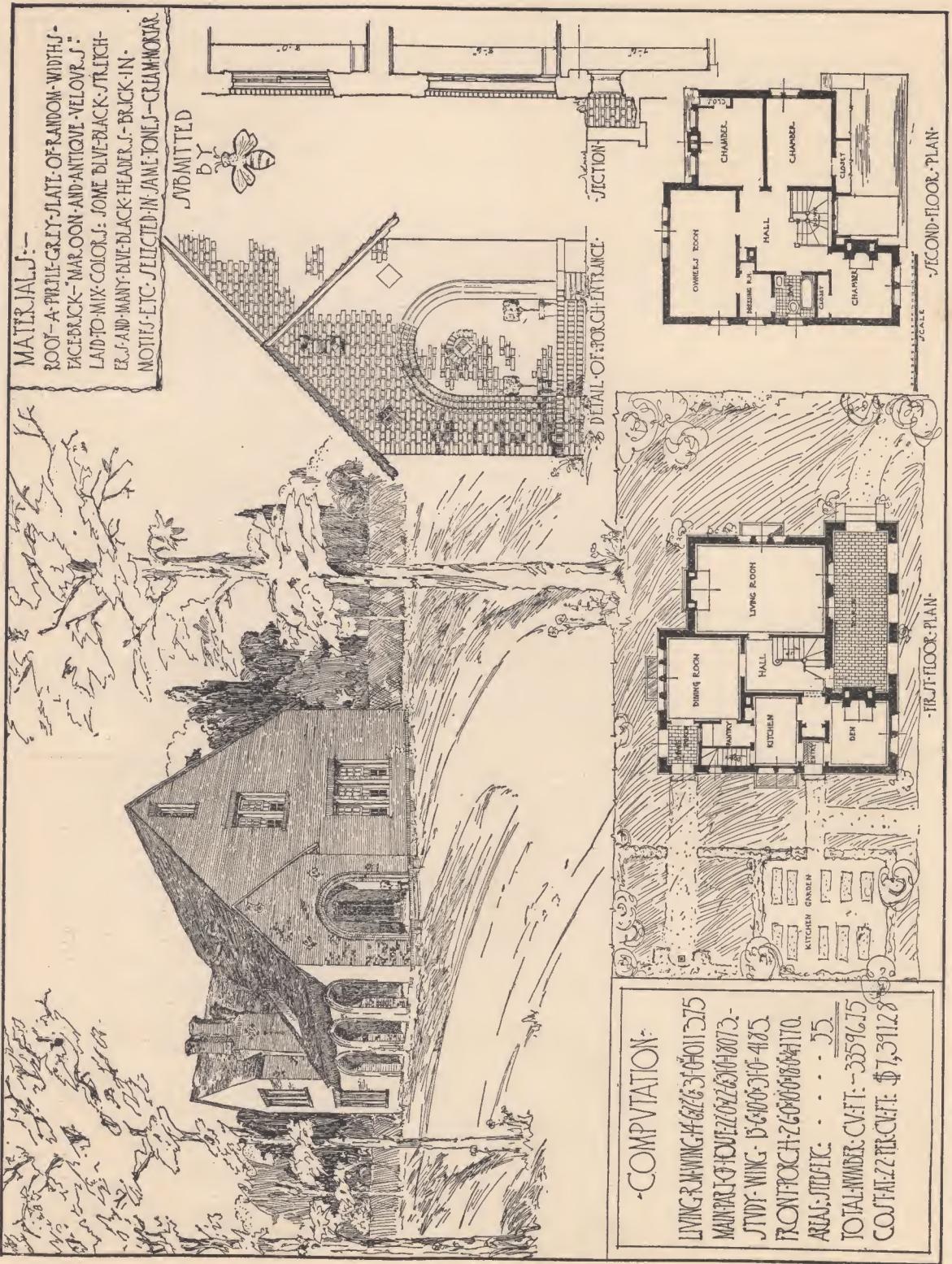
The Hy-tex House



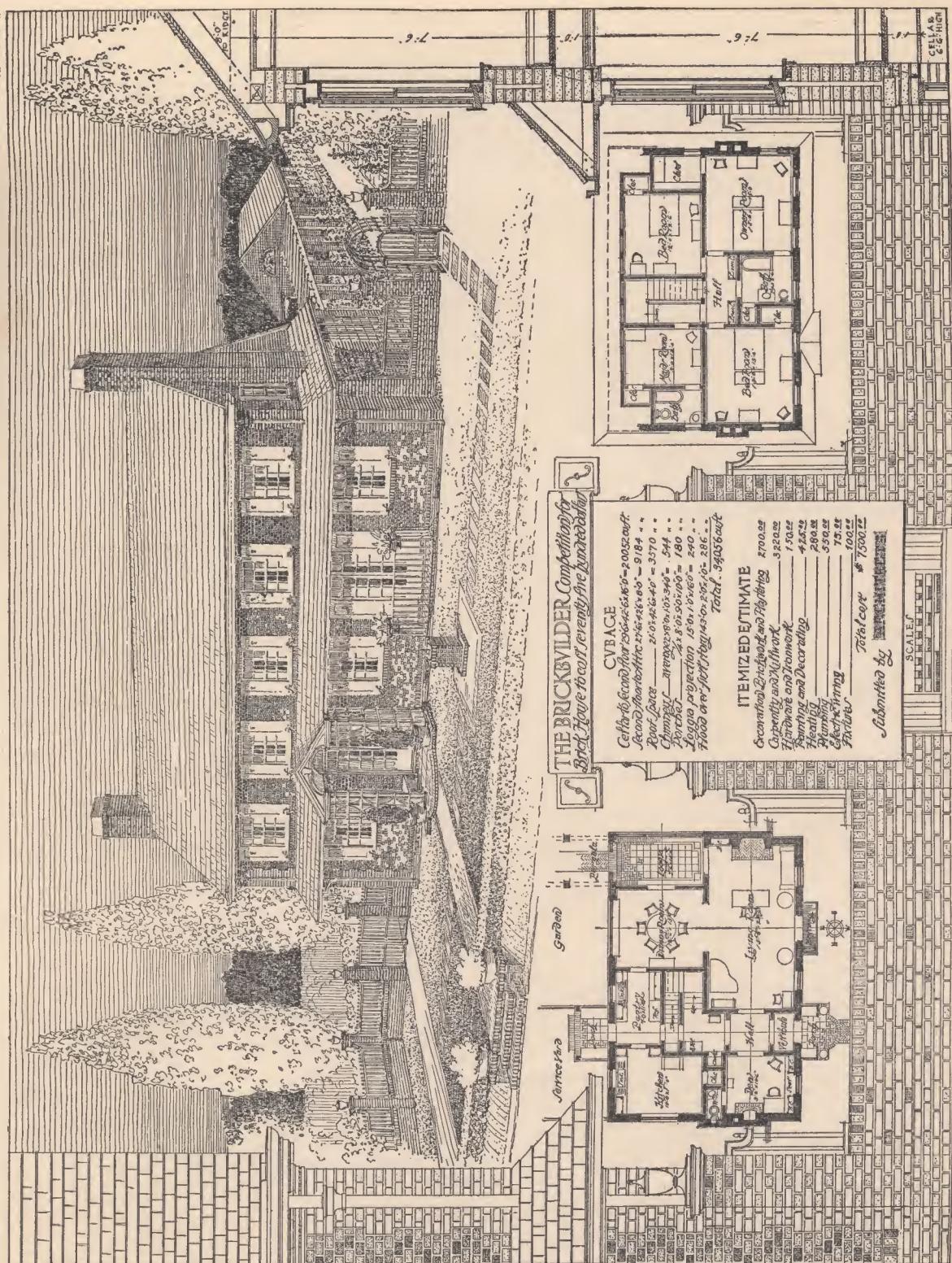
The Hy-tex House



The Hy-tex House

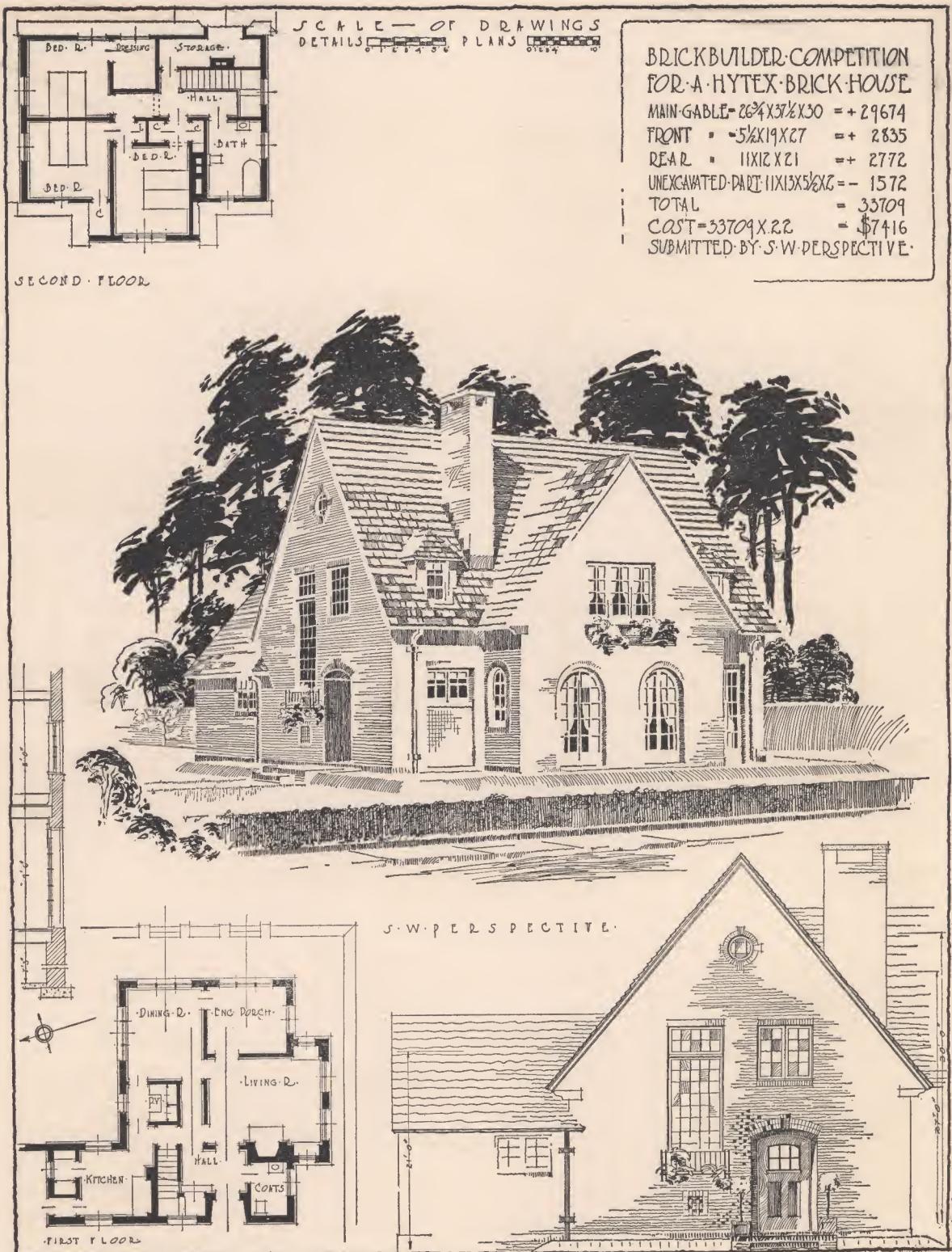


The Hy-tex House



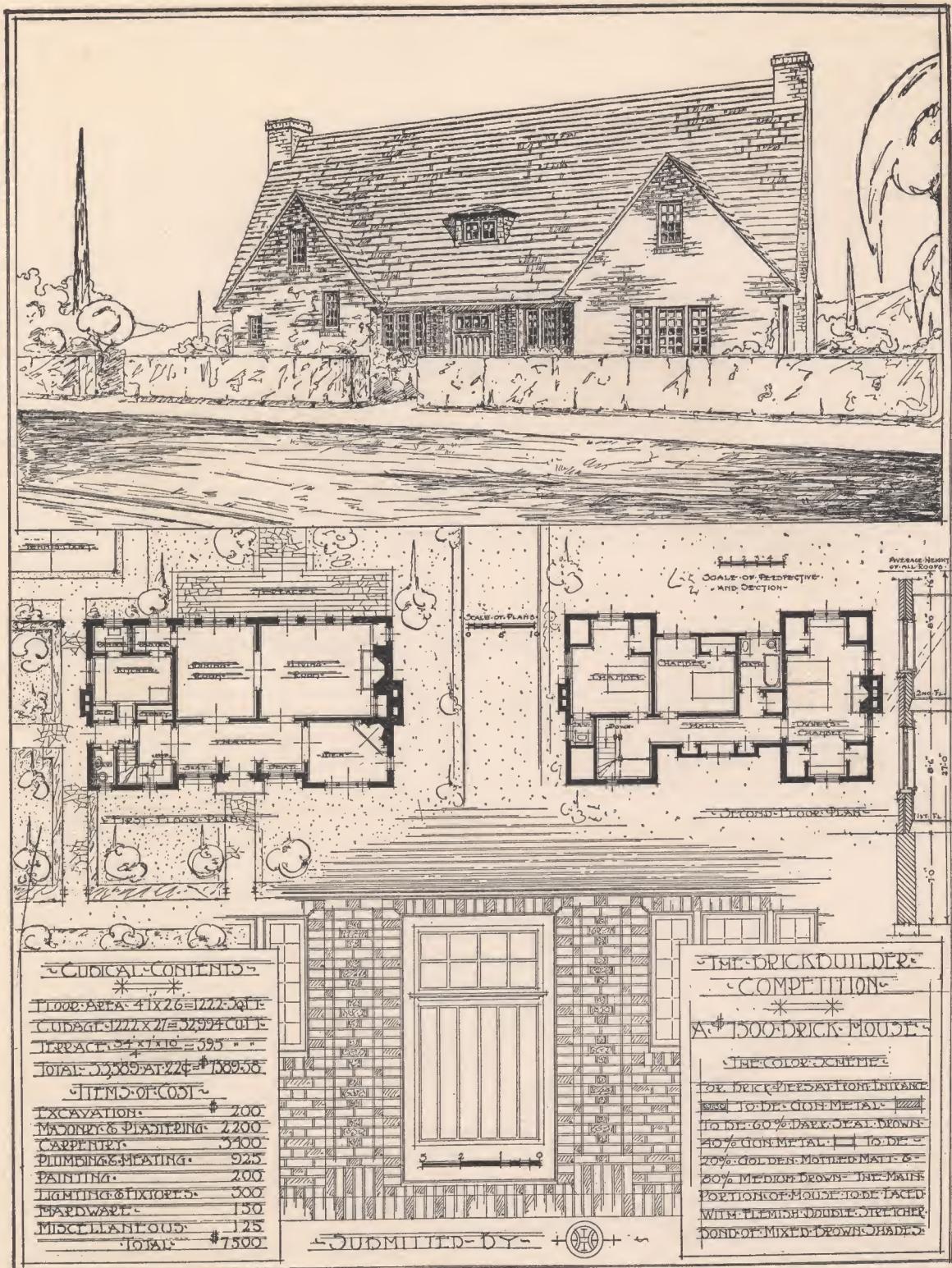
DESIGN BY DAVIS, McGRATH AND KISSLING  
175 Fifth Avenue, New York, N.Y.

The Hy-tex House



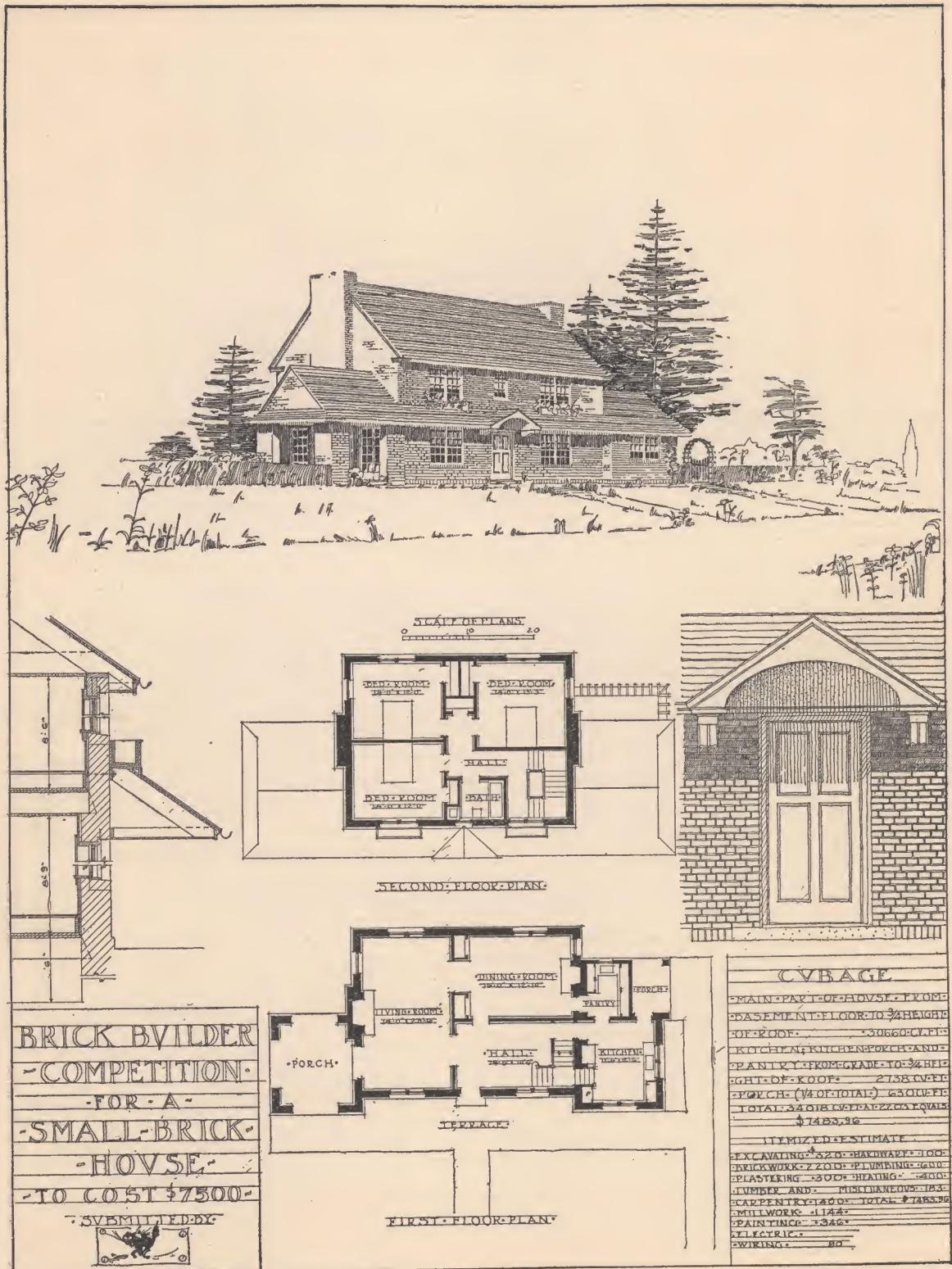
DESIGN BY H. W. PEEBLES  
Building Department, City Hall, Seattle, Wash.

The Hy-tex House



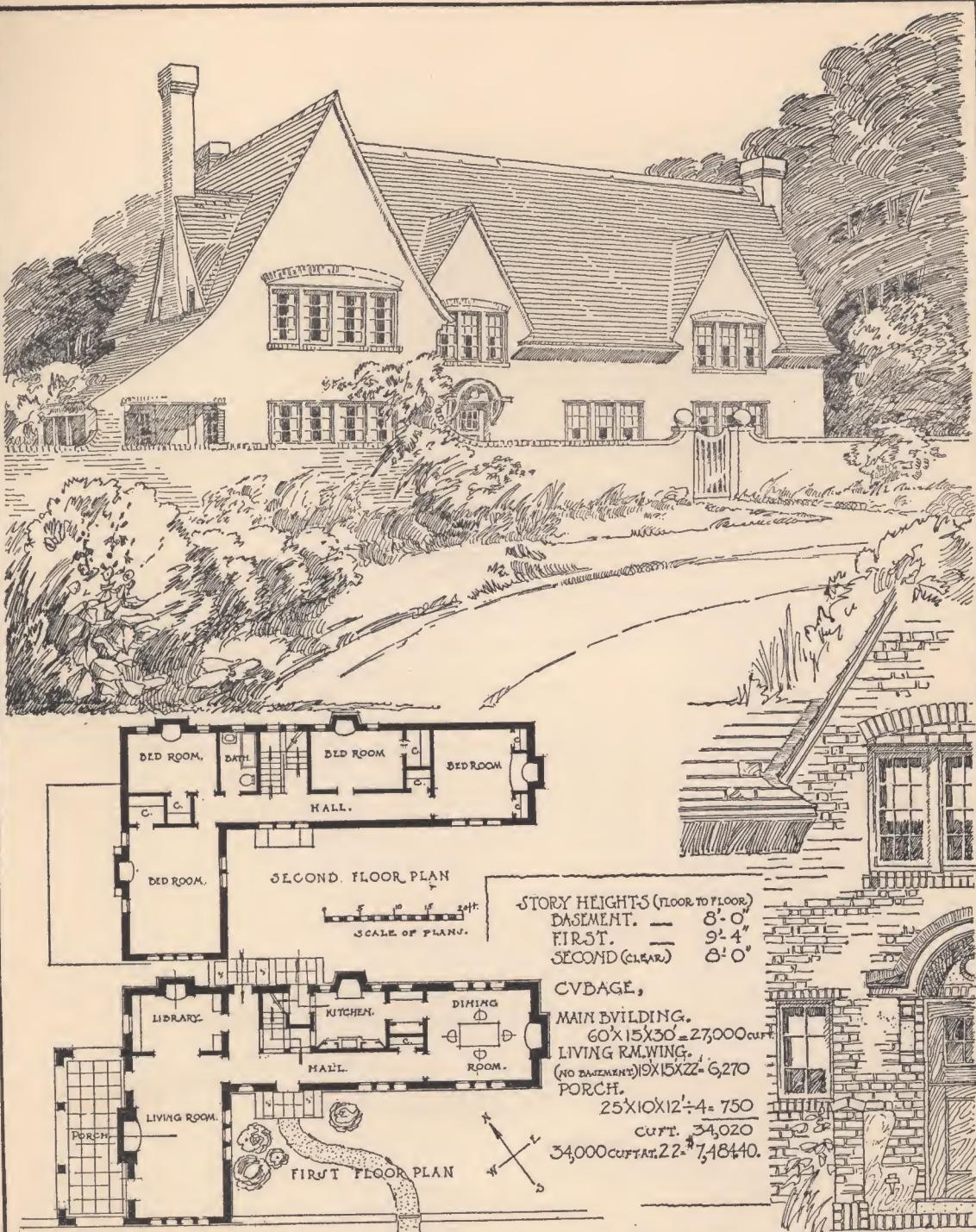
DESIGN BY OSBORNE H. GRAVES  
Maugus Inn, Wellesley Hills, Mass.

The Hy-tex House



DESIGN BY F. G. BRUTON  
Forbes and Halket Streets, Pittsburgh, Pa.

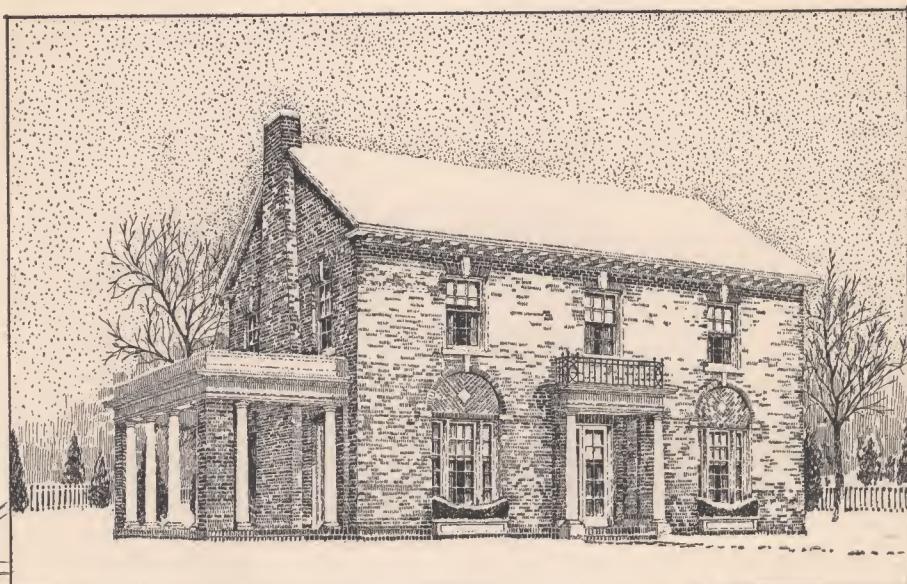
The Hy-tex House



COMPETITION FOR A BRICK HOUSE TO COST SEVENTY FIVE HUNDRED DOLLARS.

DESIGN BY NORMAN BIARD BAKER  
16 Ingram Street, Forest Hills Gardens, L. I., N. Y.

The Hy-tex House



THE BRICKBUILDER COMPETITION FOR A HOME TO BE FACED WITH HYTEX BRICK FOR SEVEN THOUSAND FIVE HUNDRED DOLLARS . . .

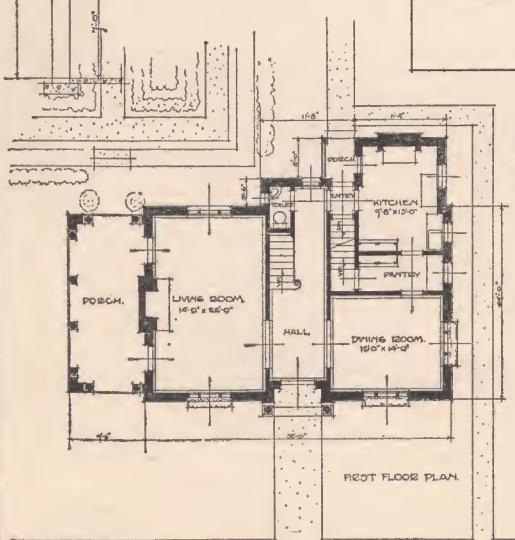
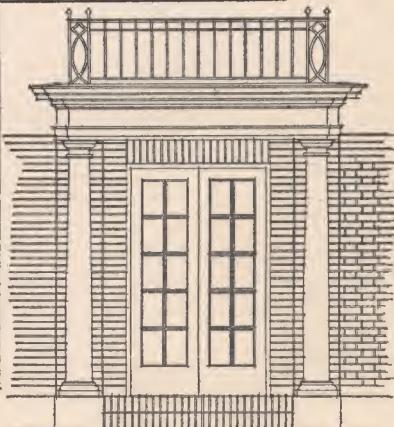
SUBMITTED BY  
ZERO

THE CUBAGE.

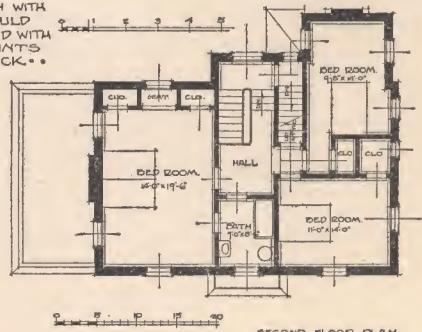
MAIN PART OF HOUSE.  
 $24 \times 36 \times 32.5 + 35 \times 23 \times 36.5 = 14,860.34 \text{ cu ft}$   
LIVING ROOM.  $14 \times 15 \times 9^{\frac{1}{2}}$   $\times 10^{\frac{1}{2}} = 1000$   
PORCHES  $2(2.5 \times 13 + 5 \times 4 \times 5) + 2(8 \times 15 + 4) = 796.8$   
TOTAL COST  $33,984.05 @ 22\frac{1}{2} = \$74,764.9$

ITEMS OF COST.

EXCAVATION	115.00
BRICKWORK	2200.00
PLASTERING	300.00
LUMBER AND CARPENTER WORK.	2500.00
PAINTING	225.00
HARDWARE	100.00
ELECTRIC WIRING	75.00
PLUMBING	500.00
HEATING	450.00
MISCELLANEOUS	975.00
	7500.00

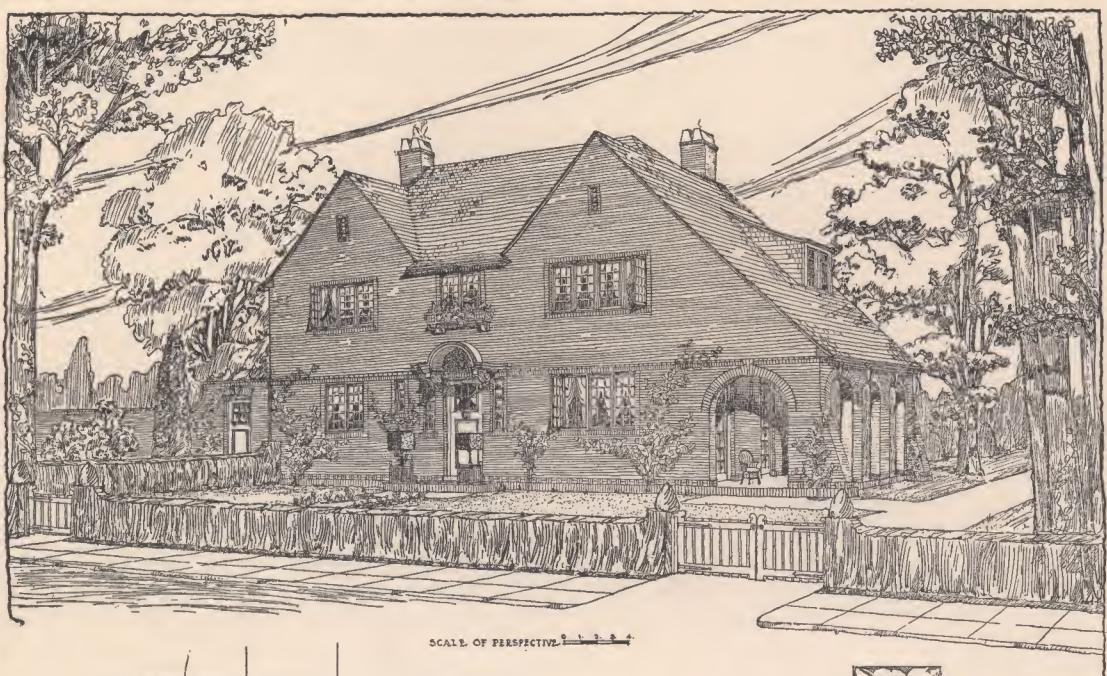


BRICK TO BE BROWN WITH RED SPOT SAND MOULD LAID FLEMISH BOND WITH BUFF MORTAR. JOINTS CUT FLUSH.  $\frac{1}{2}$ " THICK. . .

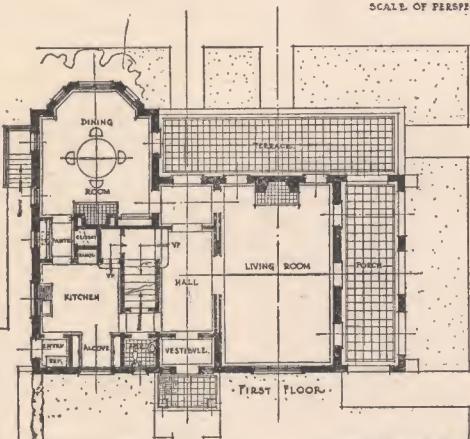


DESIGN BY H. PHILLIP BARTLETT  
824 North Tacoma Avenue, Indianapolis, Ind.

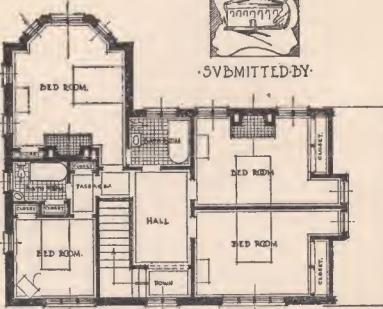
The Hy-tex House



SCALE OF PERSPECTIVE 0 1 2 3 4



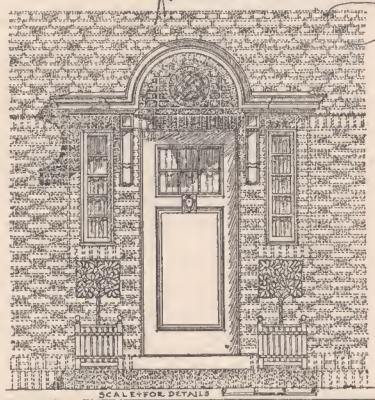
SCALE FOR PLANS 1/8 INCHES = 1'-0"



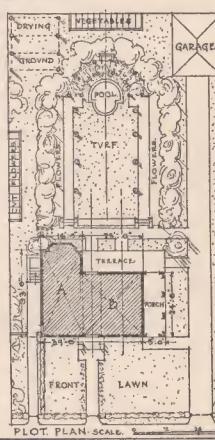
SUBMITTED BY

SECOND FLOOR.

COLOR SCHEME - HOUSE TO BE FACED WITH  
RED DOHKHARAS WITH STEEL BLACK HEADERS



SCALE FOR DETAILS



PLOT PLAN - SCALE

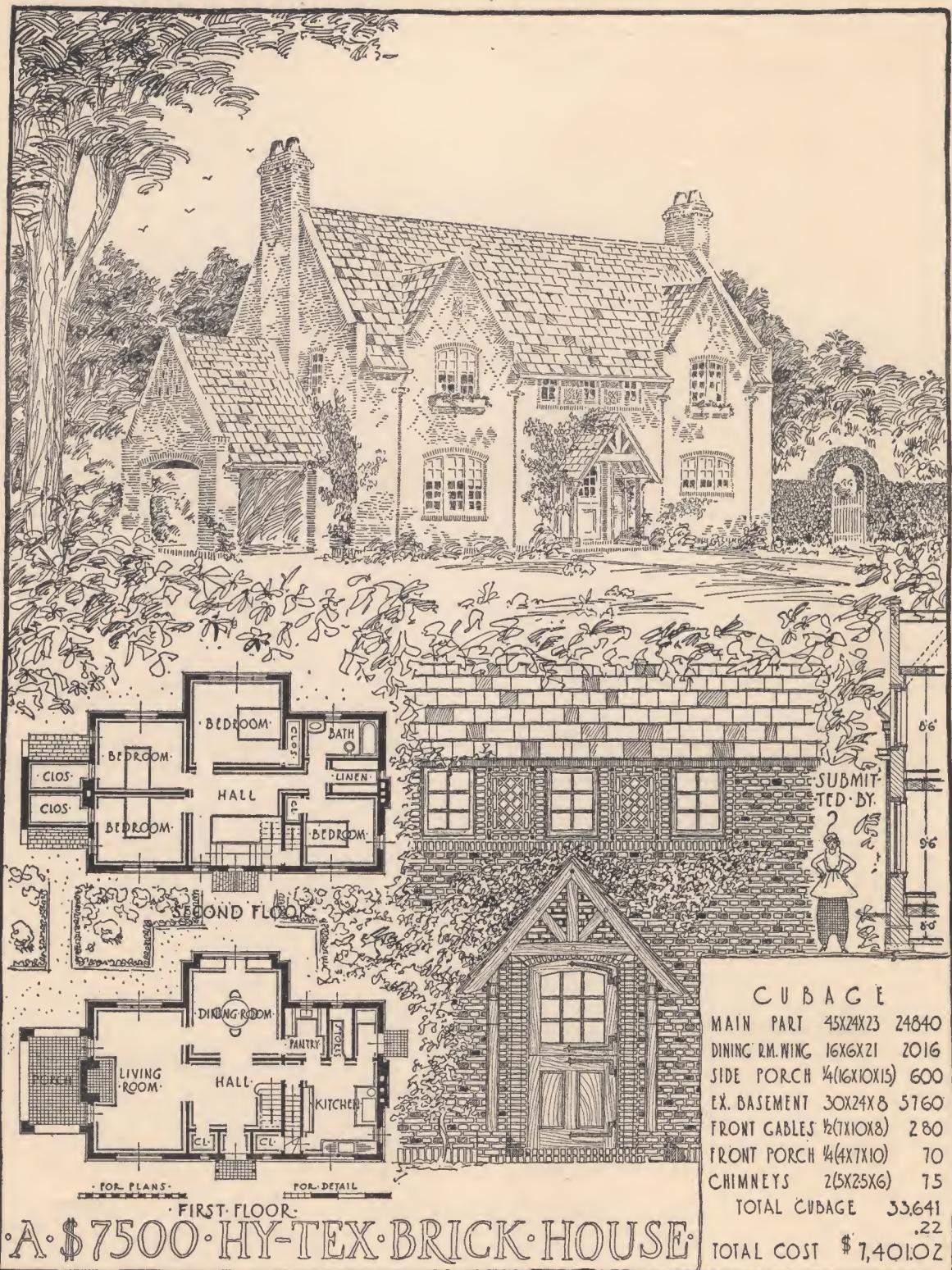
**CVBAGE**

SEE PLOT PLAN  
NOTE - BASEMENT ONLY  
UNDER SECTION MARKED  
A 16x33x31 HIGH = 16368 SF  
SECTION MARKED  
B 23x24.5x25 HIGH = 14088 SF  
PORCH 8x24.5x12 = 2352 SF  
BAY WINDOW 3x10 = 600 SF  
MISCELLANEOUS = 682 SF  
TOTAL - 34090 SF  
34090 AT \$22 CV. FT. \$ 7500.

**COMPETITION FOR A HY-TEX BRICK HOUSE TO COST \$7,500**

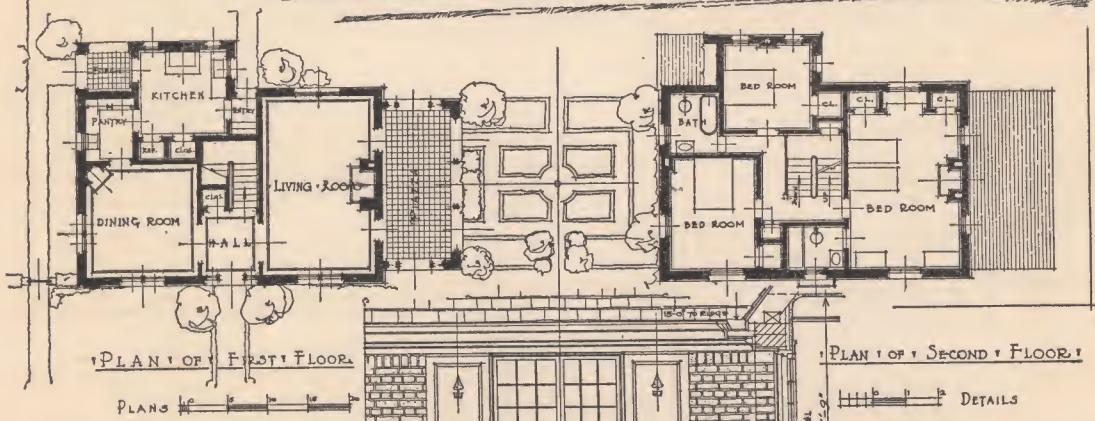
DESIGN BY CLARENCE M. BOGIA  
5833 Washington Avenue, West Philadelphia, Pa.

The Hy-tex House



DESIGN BY A. C. FRANK AND LAWRENCE C. LICHT  
4 East 39th Street, New York, N. Y.

The Hy-tex House



CUBAGE.

MAIN PART 24'x38'x33.5' = 30,552  
 REAR WING 6'x13'x29' = 2,262  
 PIAZZA 10'x21'x14' + 4 = 735  
 PORCH 6'x7'x16' + 4 = 168  
 TOTAL CUBIC FEET. 33,371  
 AT .22¢ PER CUBIC FT. \$7,417.74

ITEMIZED COST.

EXCAVATION	\$ 200.00
MASON	2,530.00
CARPENTER	2,637.00
HARDWARE	185.00
PAINTING	350.00
PLUMBING & METAL WORK	900.00
HOT AIR HEATING	425.00
ELECTRIC WORK	190.00
TOTAL	\$ 7,417.00



**BRICKBUILDER COMPETITION**  
**A BRICK HOUSE TO COST \$7,500.**  
**WALLS FACED WITH HY-TEX**  
**BRICK**

BRICK TO BE "BOKHARA"  
 IN FULL RUN OF SHADES  
 LAID WITH  $\frac{1}{8}$ " FLUSH JOINTS

IN CELLAR FLOORS

The Hy-tex House

**SUBMITTED BY**

**EXTERIOR ELEVATION**

**FIRST FLOOR**

**SECOND FLOOR**

**COST ITEMS**

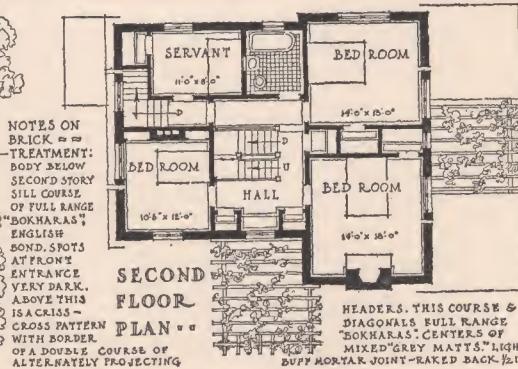
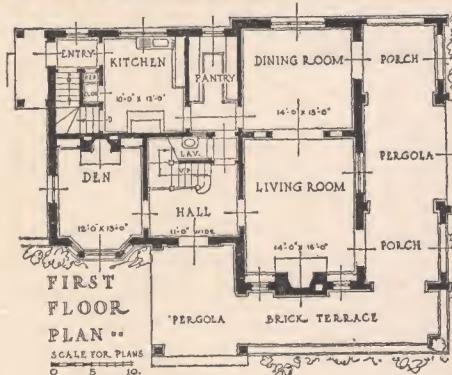
EXCAVATION	\$ 200.00
BRICKWORK	2850.00
PLASTERING	400.00
WOODWORK	1275.00
PAINTING	200.00
PLUMBING	325.00
ELECTRIC	75.00
HARDWARE	125.00
HEATING	350.00
ROOFING	600.00
MISCCELLANEOUS	1000.00
<b>TOTAL</b>	<b>\$ 7500.00</b>
CUBAGE .37x292x31 = 34000	
22¢ PER CUFT. # .22	
<b>TOTAL</b> # <b>7500.00</b>	

**BRICKBUILDER COMPETITION  
FOR A SEVEN THOUSAND  
FIVE HUNDRED DOLLAR  
BRICK HOUSE**

SCALE  
0 1 2 3 4 5 6 7 8 9 10

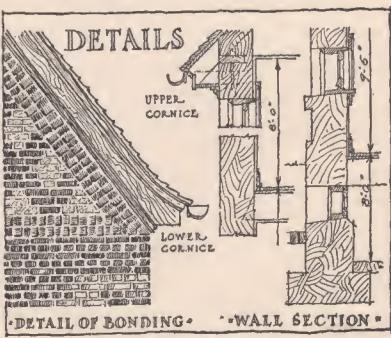
FEB 10 1914

DESIGN BY EARL FREDERICK BANKES  
548 Riverside Drive, New York, N. Y.



### \* COST \* DATA

MATERIALS & LABOR	CUBIC CONTENTS
EXCAVATING	150
BRICK & MASONRY	1800
MILL WORK	1430
PLUMBING	610
CARPENTRY & LUMBER	1700
HEATING	450
PLASTERING	590
ELECTRIC LIGHTING	200
HARDWARE & METAL	350
PAINTING	300
MISCELLANEOUS	220
COST COMPLETE	\$7,500
PER CUBIC FT	.22
TOTAL COST	\$7417.52



The Hy-tex House

**SCHEDULE OF COST**

MAIN HOUSE	40'-0" x 23'-0" x 33'-0" = 30360sf
KITCHEN WING	16'-0" x 16'-0" = 2736sf
VELDANDAH	21'-6" x 9'-0" = 196sf
TOTAL	35872sf + 22c. - \$7451.84
	776sf
	25872sf
	35872sf + 22c. - \$7451.84

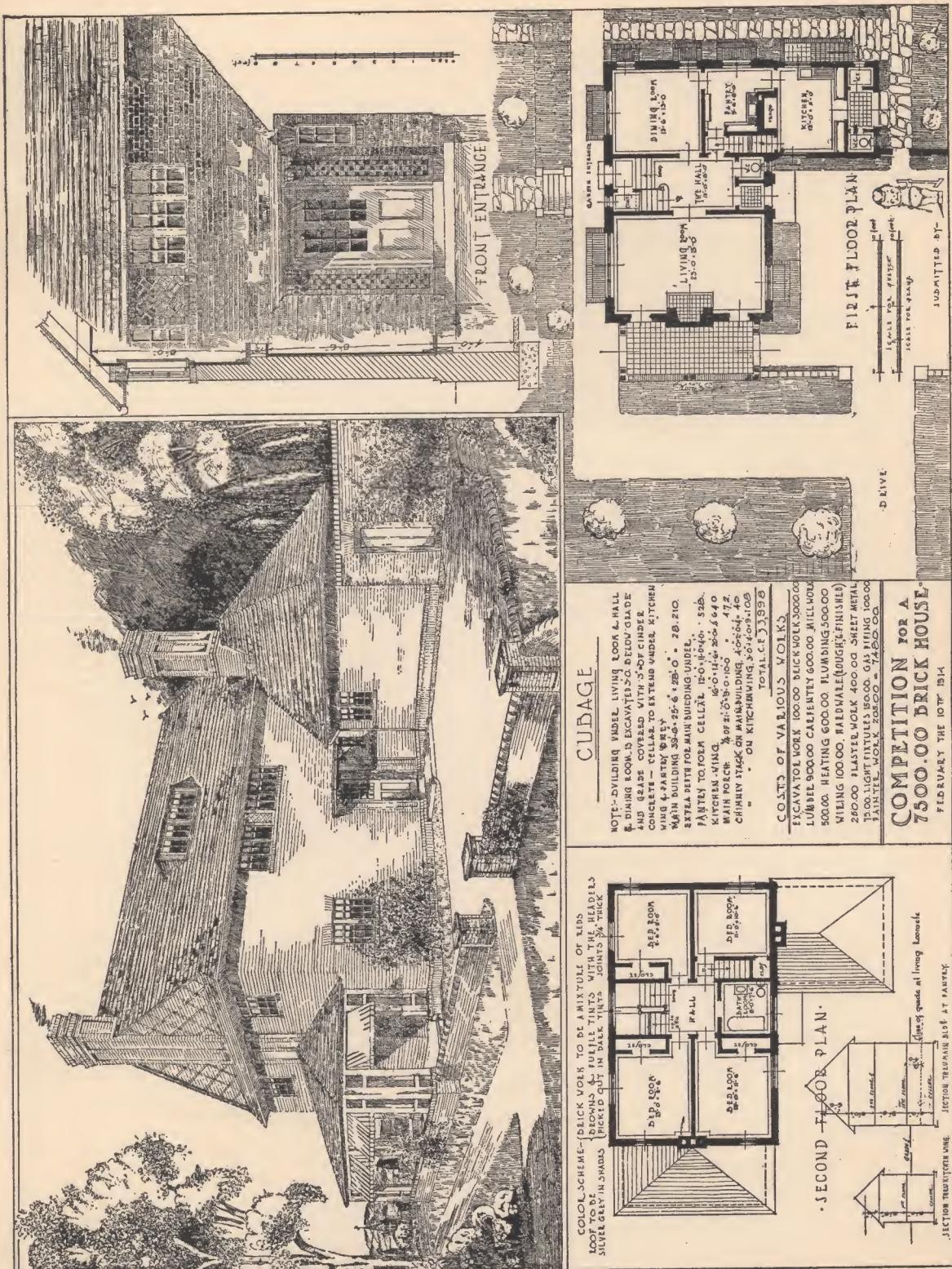
**NOTE:**  
WALLS TO BE LAID UP IN  
HY-TEX BRICK AND TO BE  
DOUBLE STRETCHER FLEMISH  
WITH DARKER HEADERS \*\*\*  
SUBMITTE D Y HURRY UP \*

**PLAN OF SECOND FLOOR**

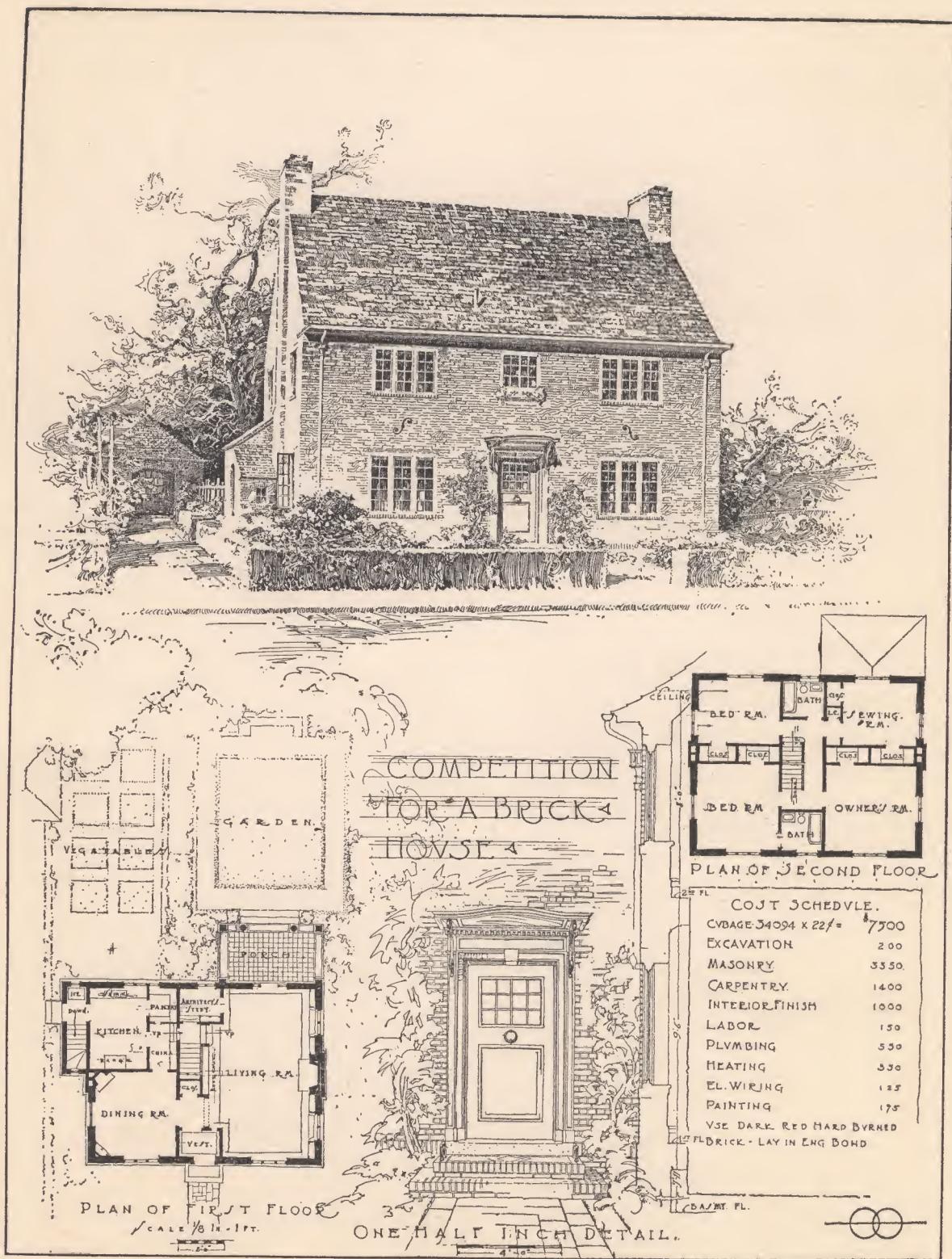
**PLAN OF FIRST FLOOR**

**BRICK BUILDER COMPETITION FOR A \$7500.00 BRICK HOUSE**

## The Hy-tex House

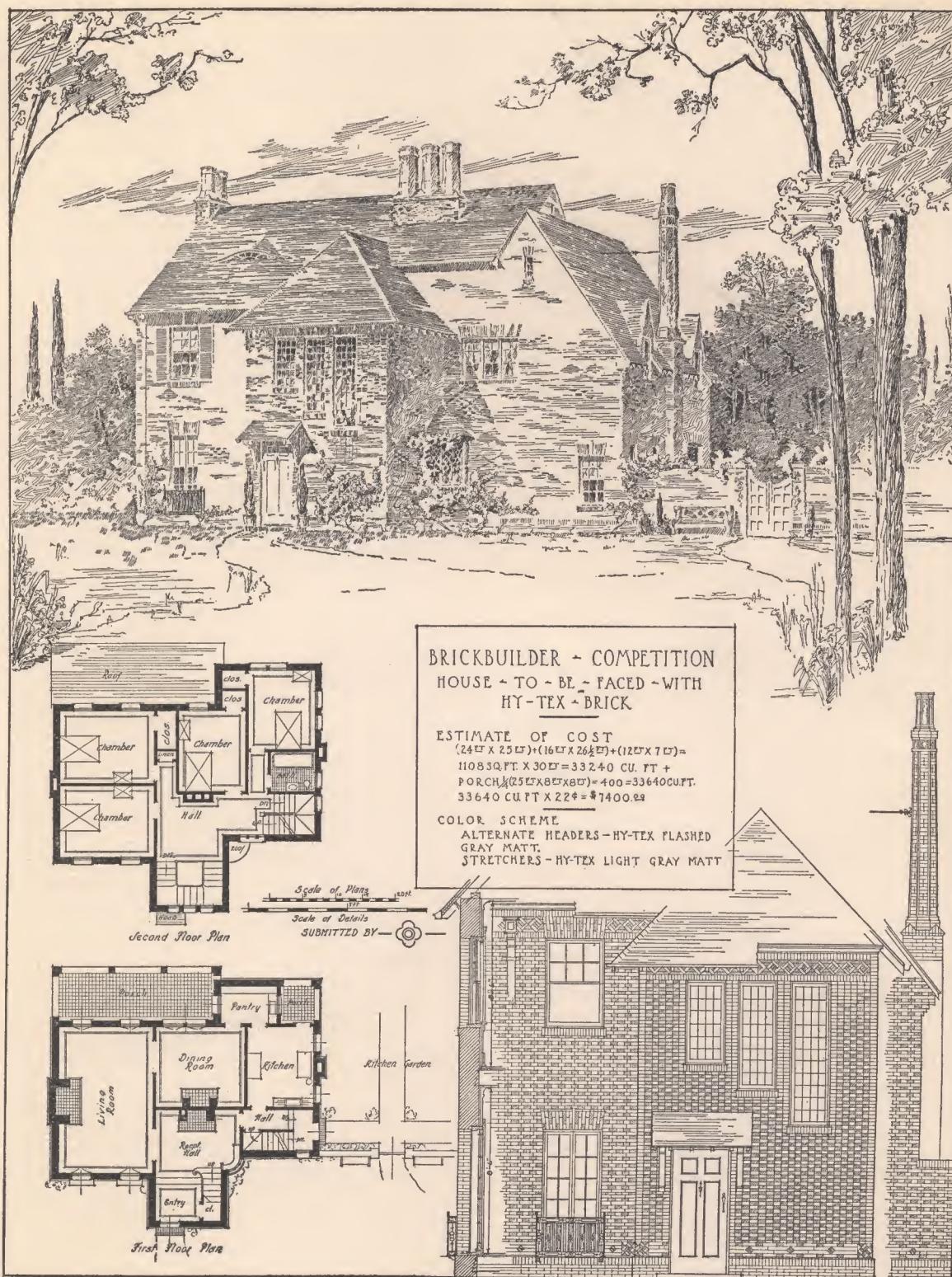


The Hy-tex House

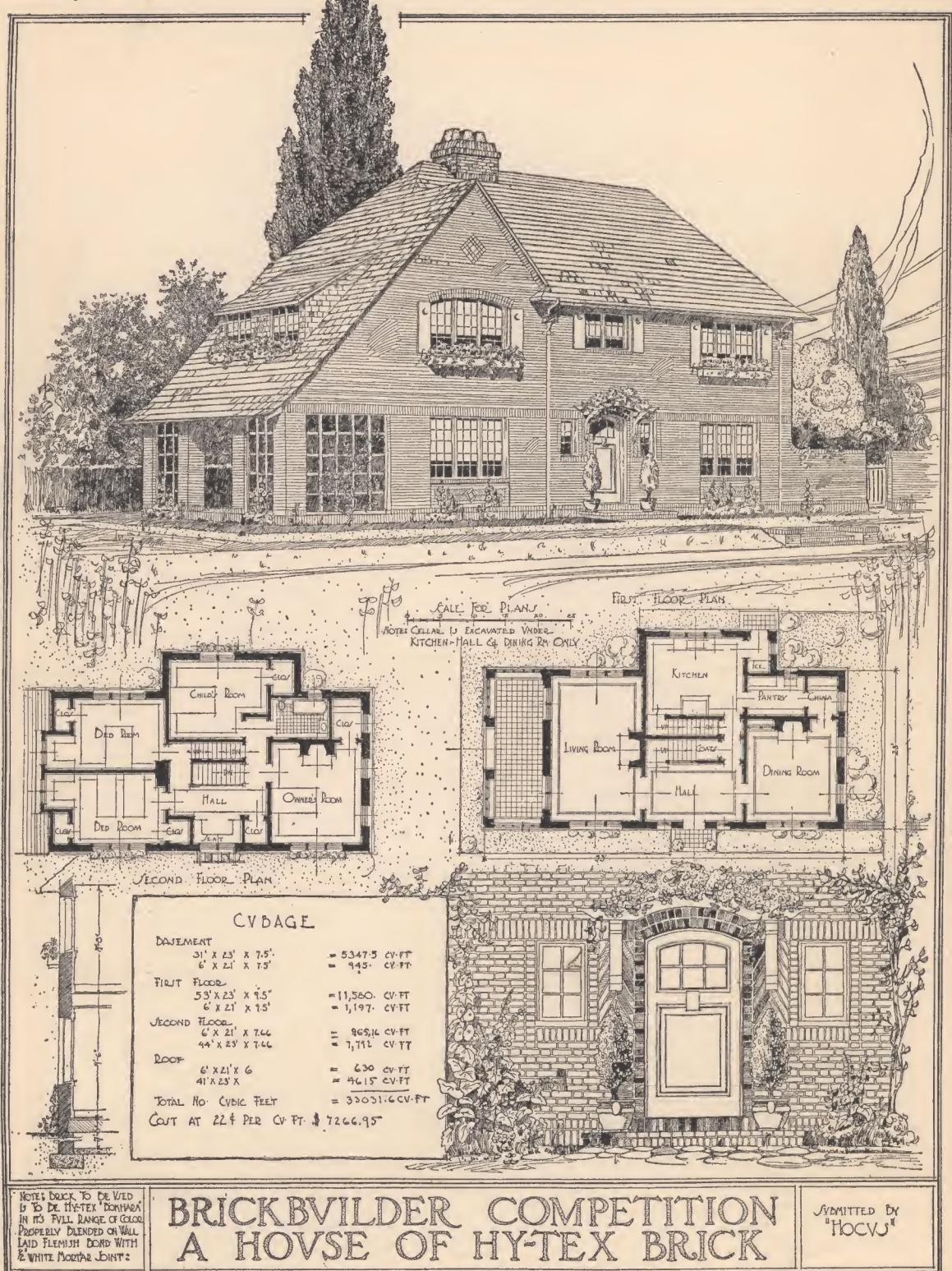


DESIGN BY A. J. HARPER  
470 Fourth Avenue, New York, N. Y.

The Hy-tex House



The Hy-tex House



NOTE: BRICK TO BE USED  
IS TO BE HY-TEX "BONHARD"  
IN ITS FULL RANGE OF COLORS  
PROPERLY BLENDED ON WALL  
LAID FLEMISH BOND WITH  
2" WHITE MORTAR JOINTS.

# BRICKBUILDER COMPETITION A HOUSE OF HY-TEX BRICK

SUBMITTED BY  
"HOCVUS"

DESIGN BY WILLIAM J. MOONEY  
110 State Street, Boston, Mass.

The Hy-tex House

A HY-TEX BRICK HOUSE

TO COST NOT EXCEEDING \$7,500<sup>00</sup>

THE BRICKBUILDER COMPETITION

FEBRUARY 10, 1914.

SUBMITTED BY

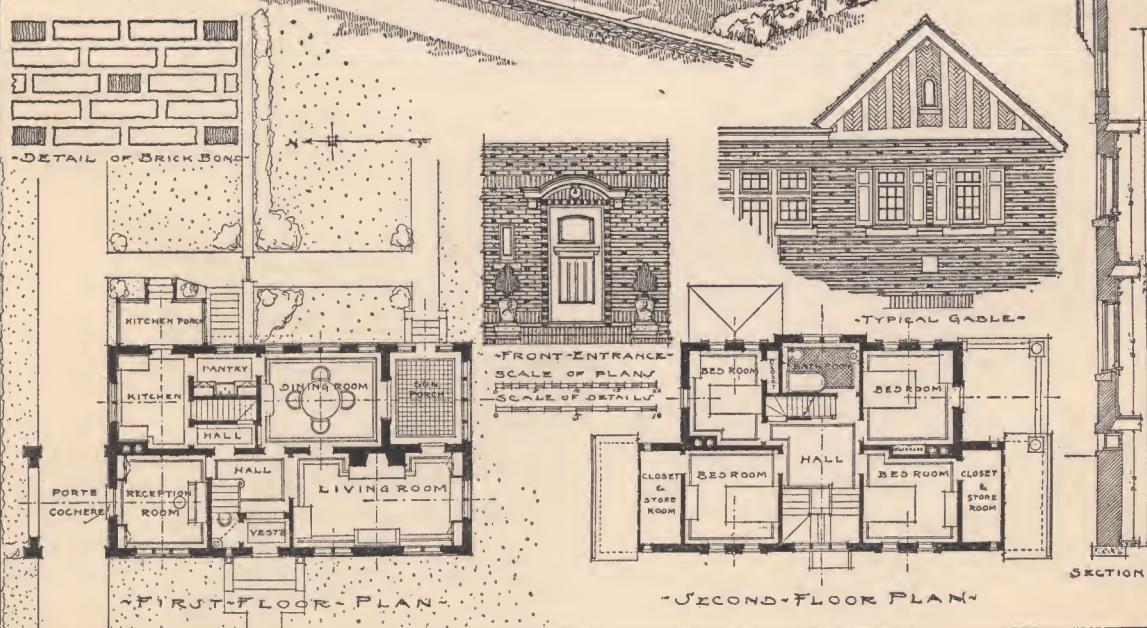
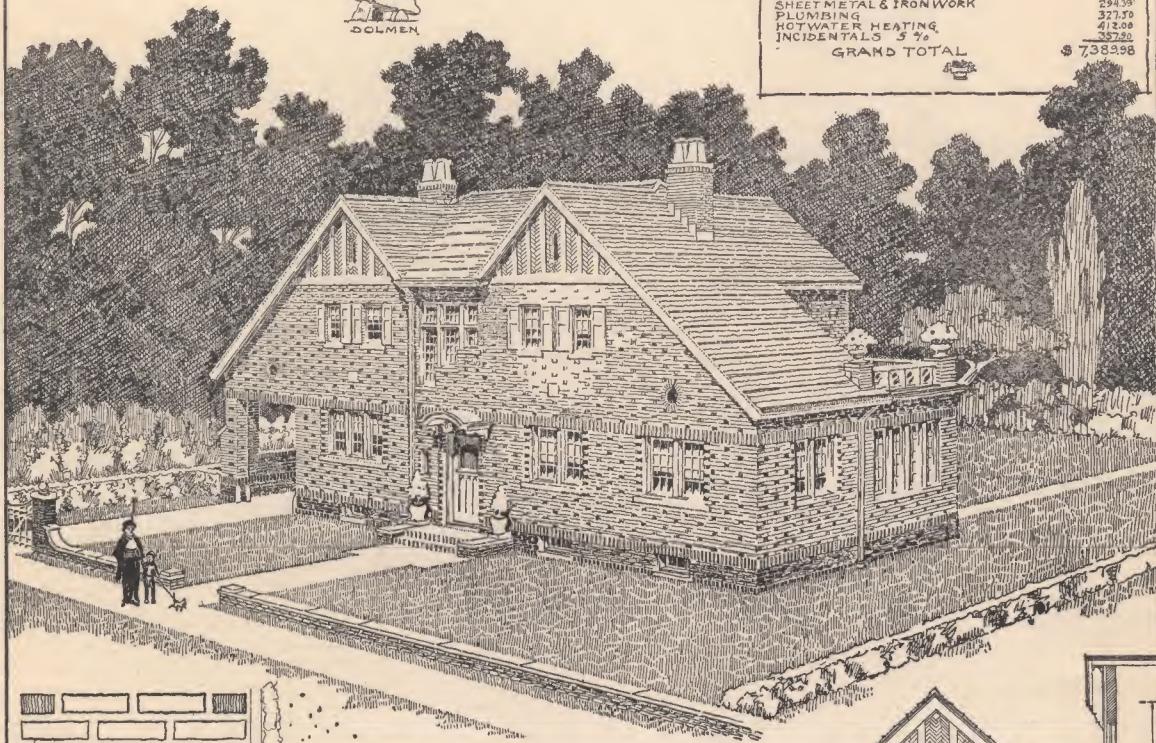


~ CUBICAL CONTENTS ~

MAIN PART OF HOUSE	26x35' x 32'6"	28575
SOUTH PART LIVING ROOM	10x13'8" x 21'	2000
SUN PORCH	10x12'4" x 14' + 4	432
PORTE COCHERE	10x13'6" x 16'6" + 4	891
KITCHEN PORCH	6x11" x 13' + 4	216
TOTAL CUBAGE		33607
33607 cu. ft. @ 22¢	=	\$ 7393.54

ESTIMATE

EXCAVATION & MASON WORK	\$418.50
LEADERS	786.48
MILLWORK & GLAZING	1047.72
CARPENTER LABOR	673.70
PLASTERING	359.26
PAINTING	24.89
HARDWARE	146.57
SHEET METAL & IRON WORK	294.39
PLUMBING	327.50
HOTWATER HEATING	412.00
INCIDENTALS 5%	20.00
GRAND TOTAL	\$ 7,383.98



The Hy-tex House

COMPUTATION OF COST

AREA OF HOUSE 1020 SQ FT

CUBE OF HOUSE 52640 CU FT

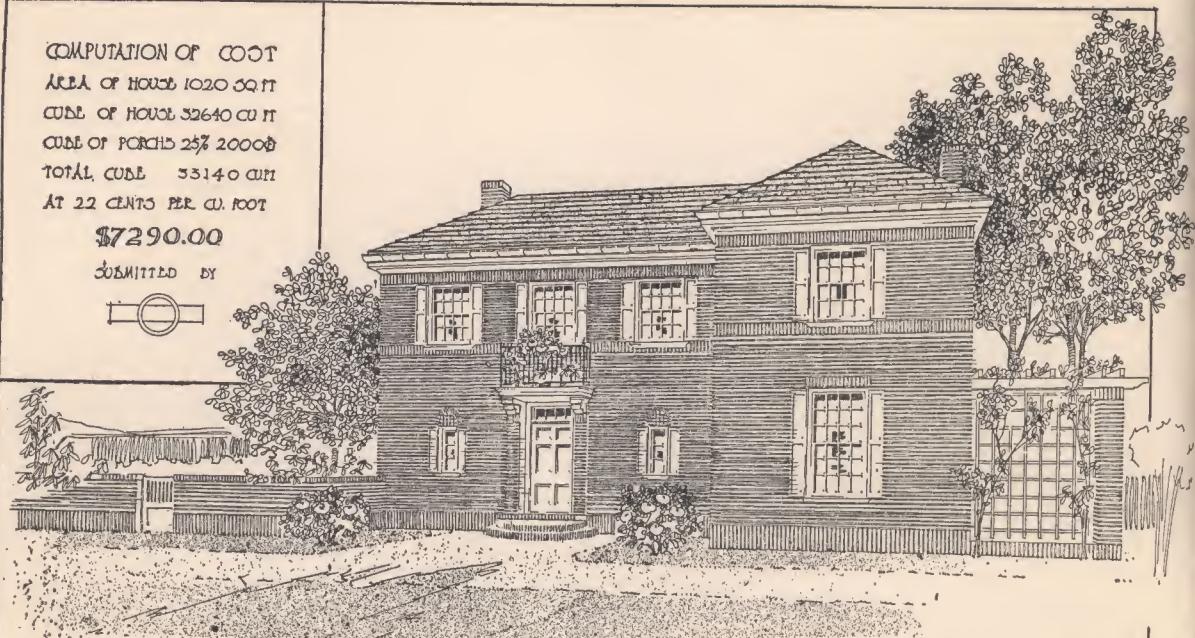
CUBE OF PORCHES 257 20000<sup>8</sup>

TOTAL CUBE 53140 CUM

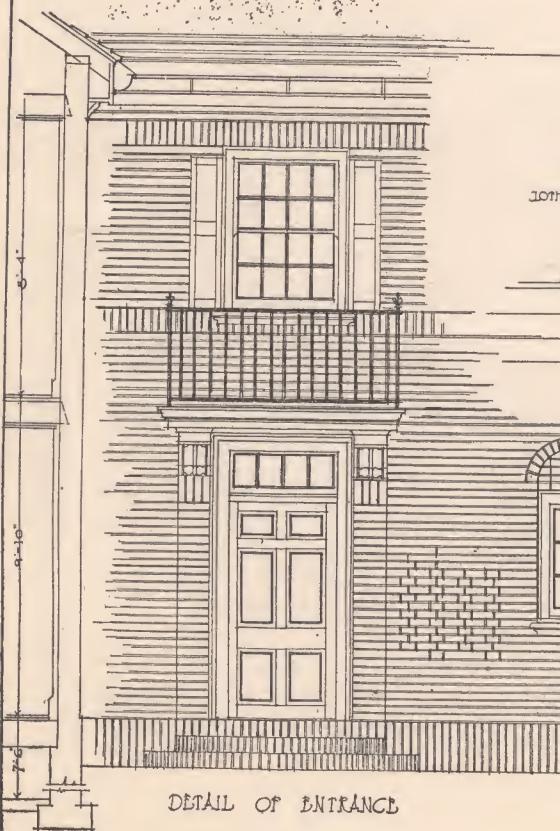
AT 22 CENTS PER CU. FOOT

**\$7290.00**

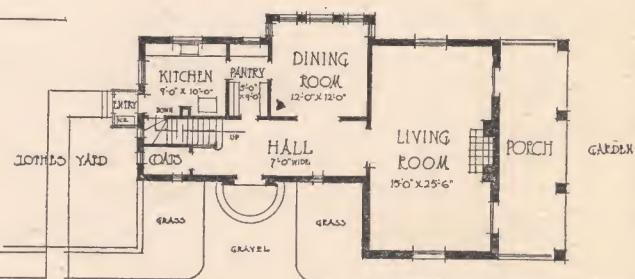
SUBMITTED BY



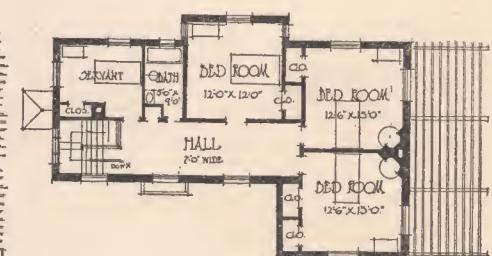
A 7500 DOLLAR HOUSE  
TO BE BUILT OF HY-TEX BRICK



DETAIL OF ENTRANCE



FIRST FLOOR PLAN



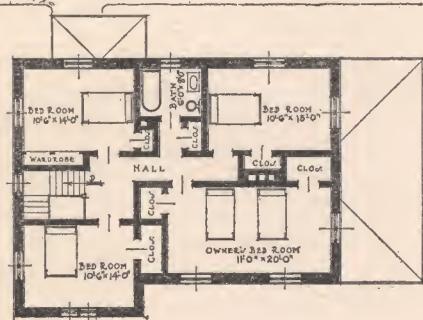
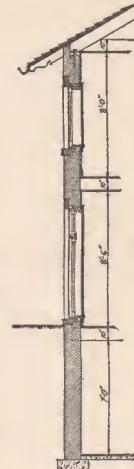
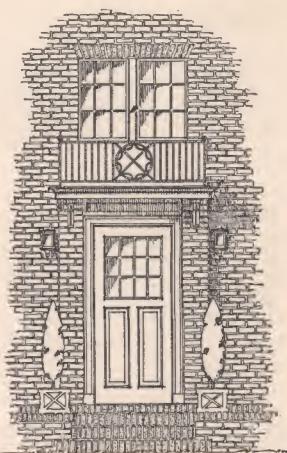
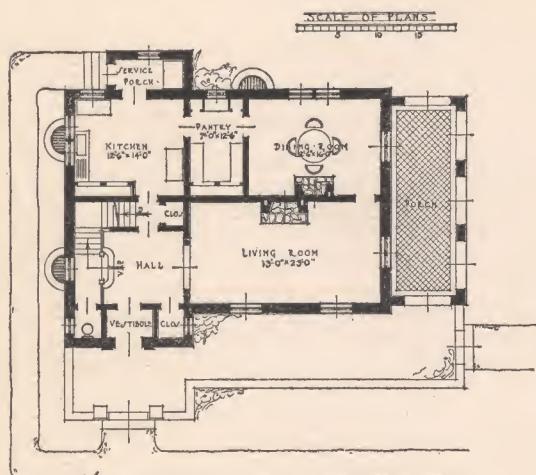
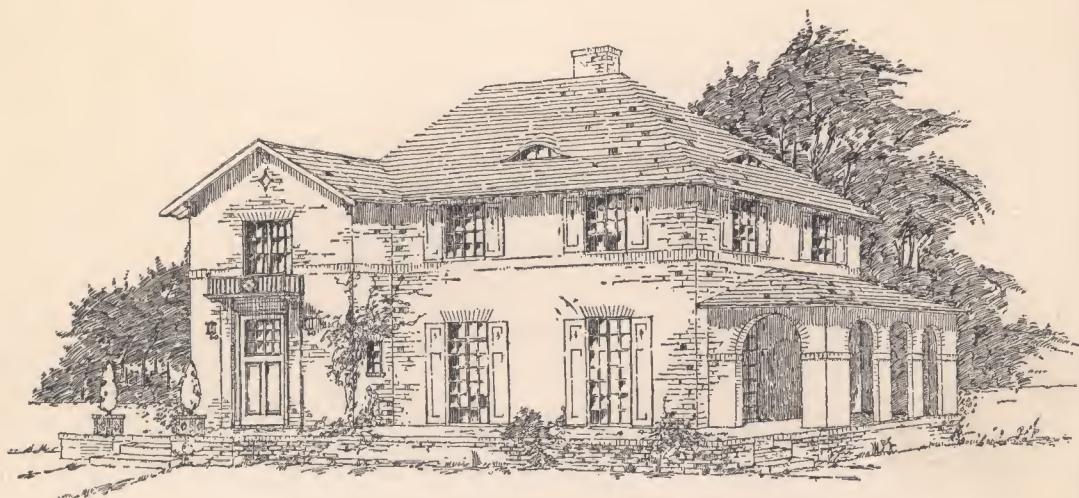
SECOND FLOOR PLAN

SCALE: 1/8 INCH = 10 FEET

DESIGN BY LOUIS SCHALK

1135 Merchants Exchange Building, San Francisco, Cal.

The Hy-tex House



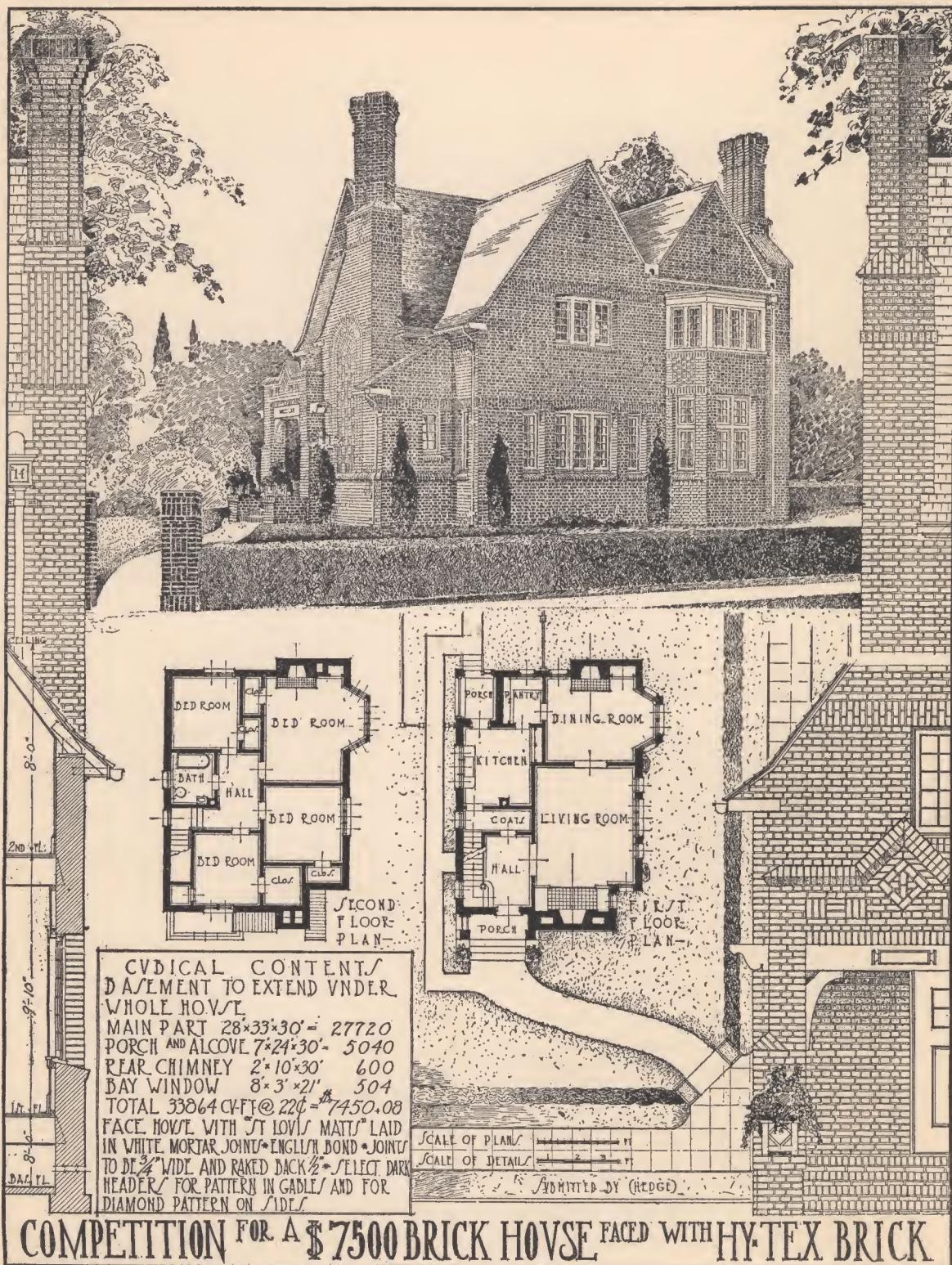
CUBICAL CONTENTS OF HOUSE	
MAIN HOUSE	40'0" x 28'0" x 30'0" = 33600
WING IN FRONT	6'0" x 40' x 21'0" = 1344
PORCH	(7'0" x 25'6" x 12'0") $\frac{1}{4}$ = 689
SERVICE WING	(10'6" x 4'8" x 12'0") $\frac{1}{4}$ = 147
AREAS CHIMNEY & STEPS	40
DEDUCTING FOR UNEXCAVATED	33820
PORTION ON RIGHT SIDE OF HOUSE	{ = 1730
TOTAL CUBIC FT	= 34090
COST	34090 CU FT x 22¢ \$7499.80



COMPETITION FOR A BRICK HOVSHE TO COST  
SEVEN THOUSAND FIVE HUNDRED DOLLARS

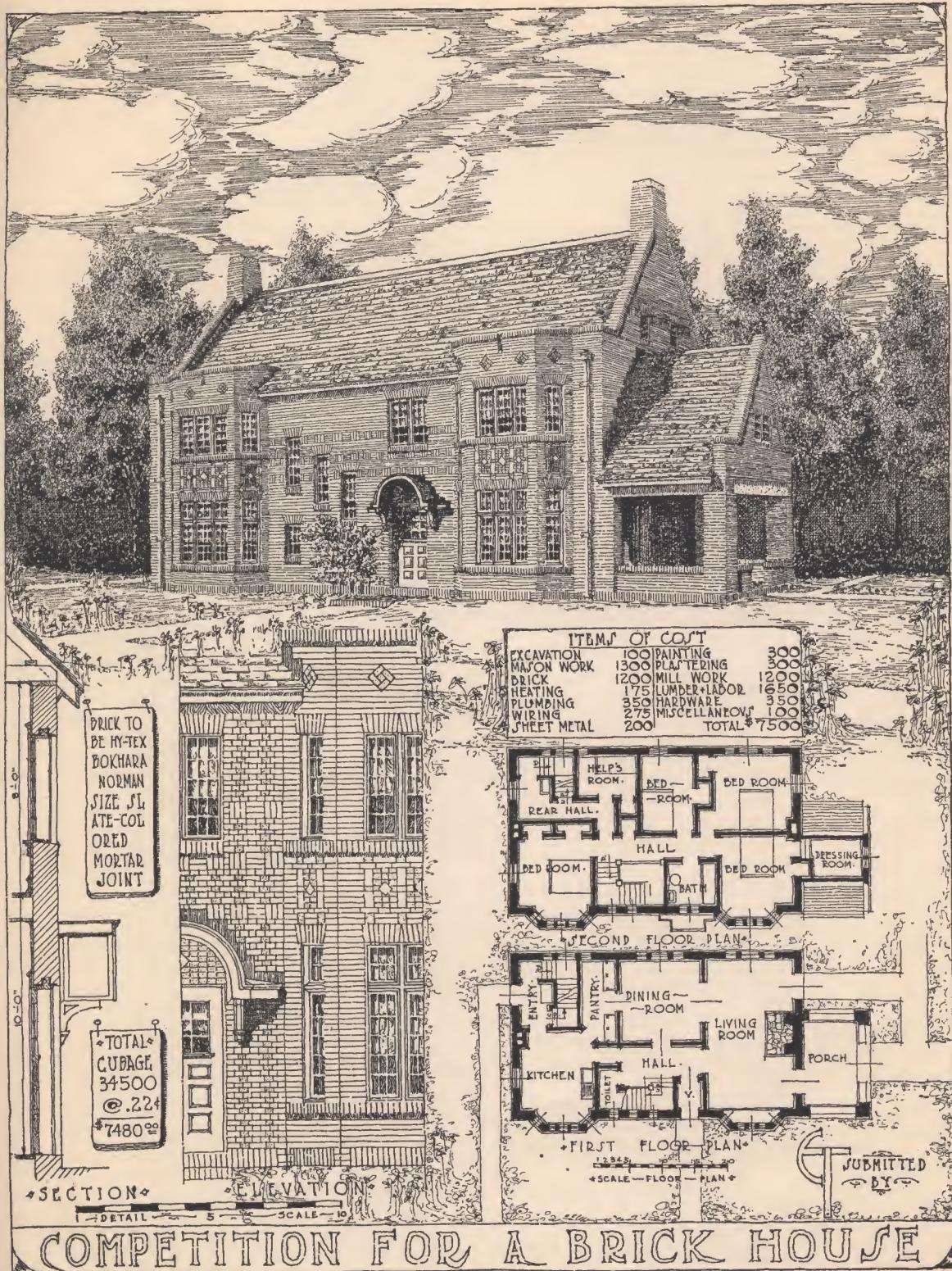
DESIGN BY EDMUND F. WINDSOR  
1155 Dean Street, Brooklyn, N. Y.

The Hy-tex House



DESIGN BY HERMAN A. MOLDENHOUR  
1319 Alaska Building, Seattle, Wash.

The Hy-tex House



DESIGN BY EDWARD J. THOLE  
1006 Vine Street, Evansville, Ind.

The Hy-tex House

**COMPETITION FOR A HYTEX BRICK HOUSE**

SUBMITTED BY

**SECOND FLOOR PLAN**

**FIRST FLOOR PLAN**

**DETAIL OF ENTRANCE**

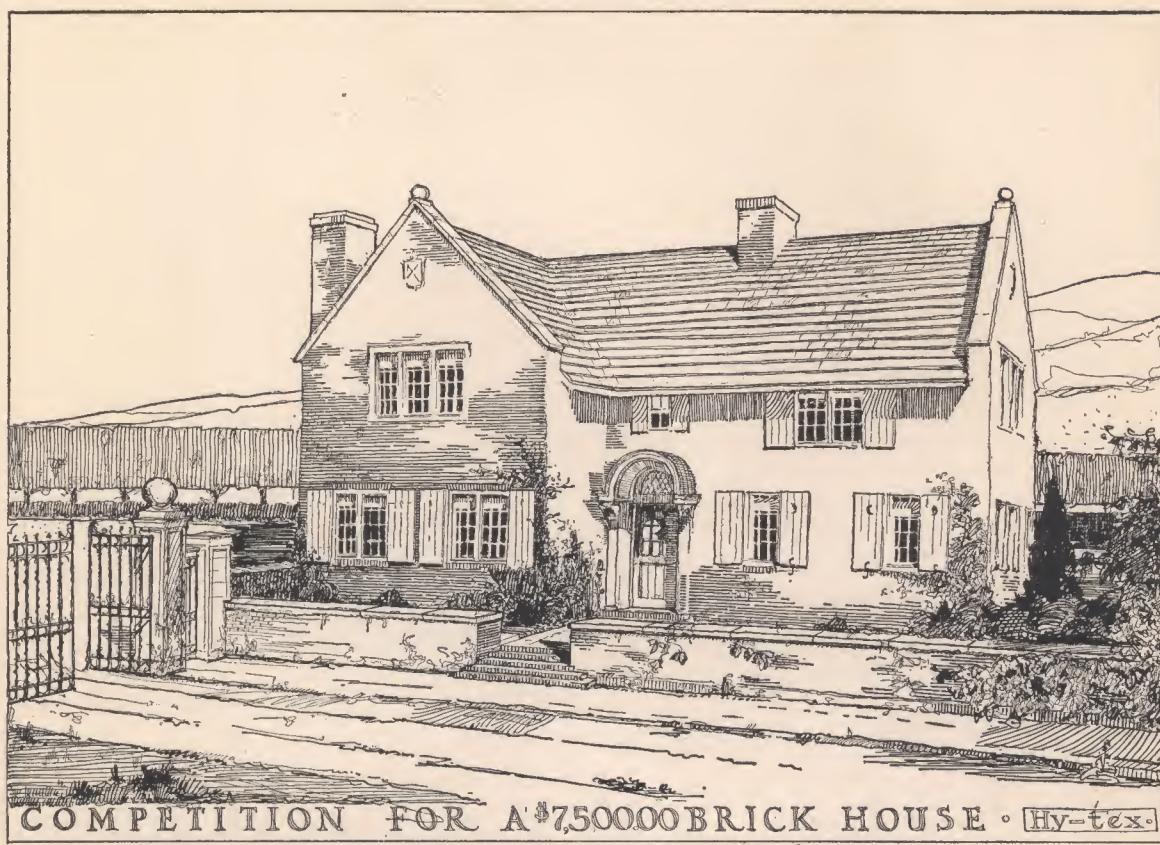
**SECTION**

**SCALES**

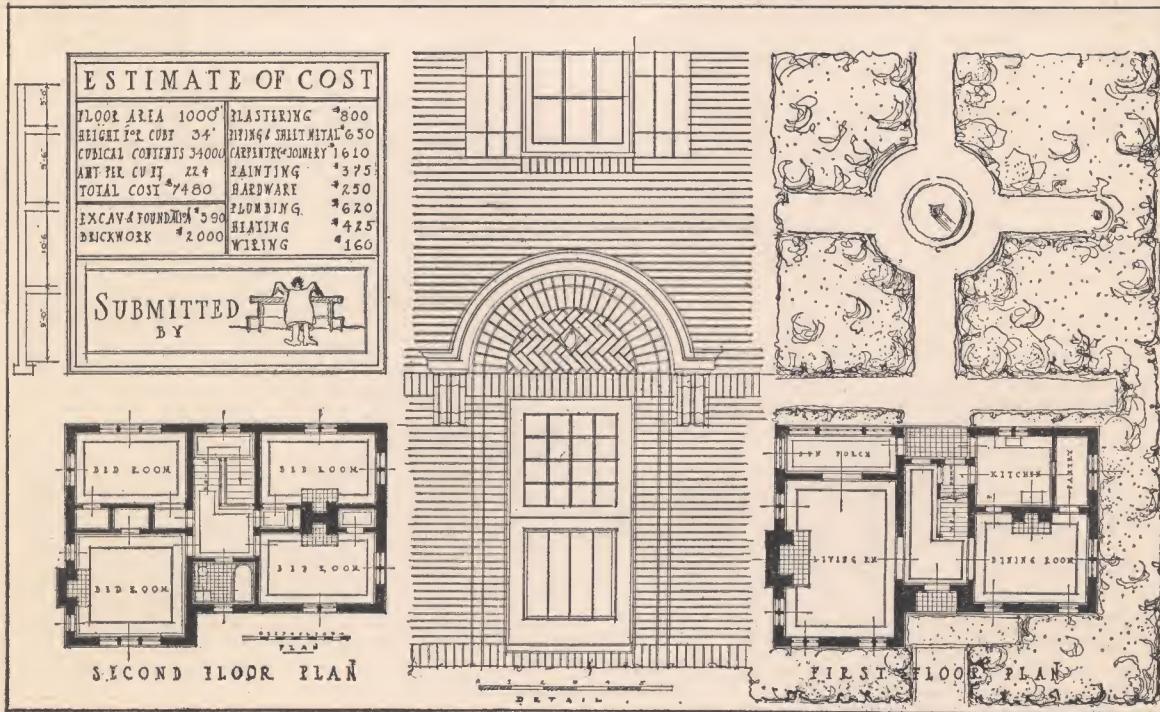
**SCHEDULE OF COSTS ETC.**

LIVING ROOM	17X27=	459 SQFT
DINING ROOM		
KITCHEN & PANTRY	17X27=	459 ..
HALL	13X18=	234 ..
REAR PORCH		
ICE BOX ETC.	5X13=	65 ..
CHIMNEY	2X6	12 ..
TOTAL AREA	1229 ..	
AT AVERAGE HEIGHT 9FT 2 1/2 FT.		
EQUAL	53,183 CUBIC FEET	
AT 22¢ PER CUF.	\$ 7300.26	
RED BRICK OF VARIED SHADES TO		
BELAID DOUBLE DUTCHER BOND		
WITH HALF INCH JOINTS.		

DESIGN BY HENRY BOAK  
456 East 18<sup>th</sup> Street, New York, N. Y.

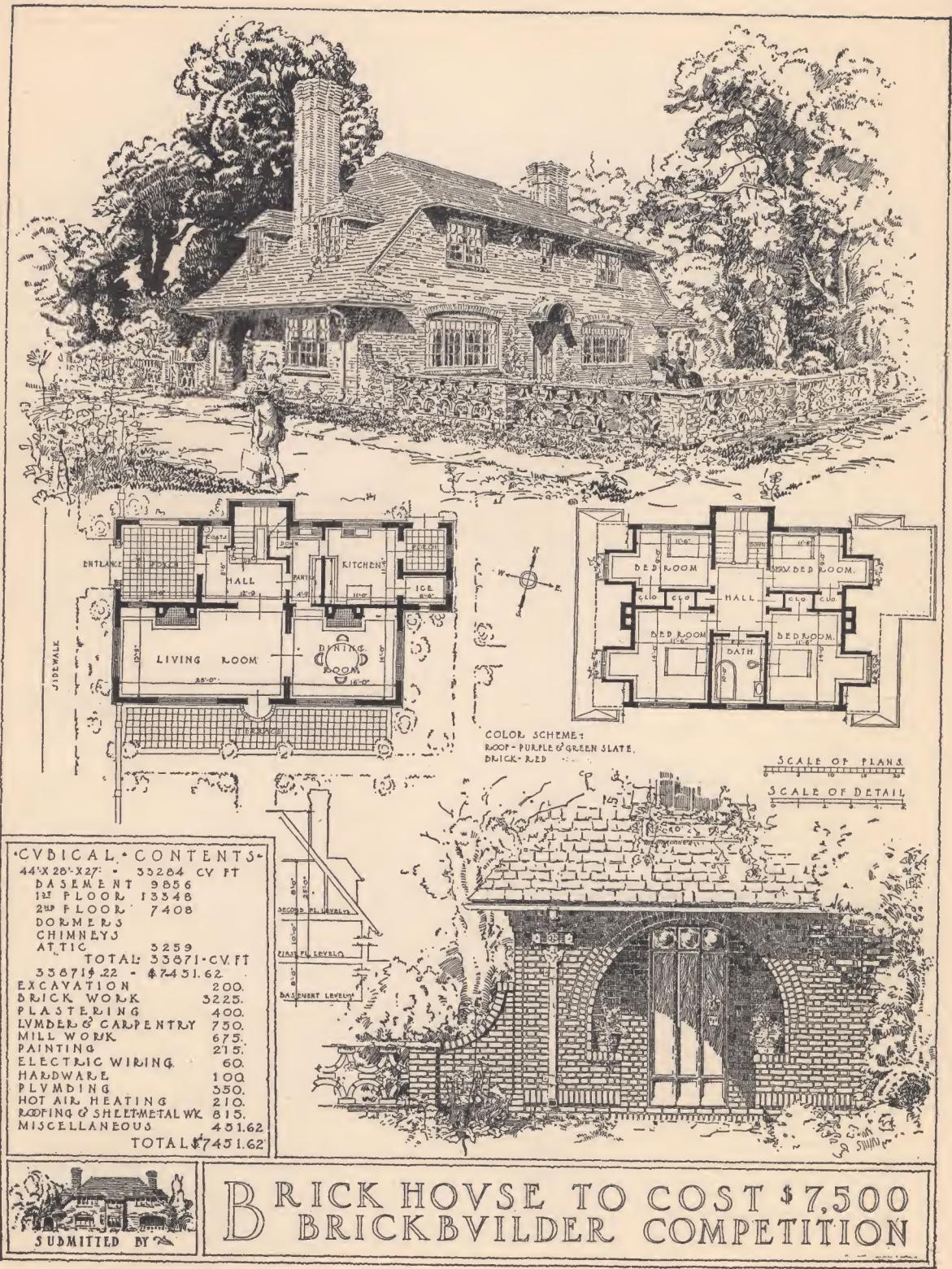


COMPETITION FOR A \$750000 BRICK HOUSE • Hy-tex.



DESIGN BY CHARLES G. BEERSMAN  
244 Fifth Avenue, New York, N. Y.

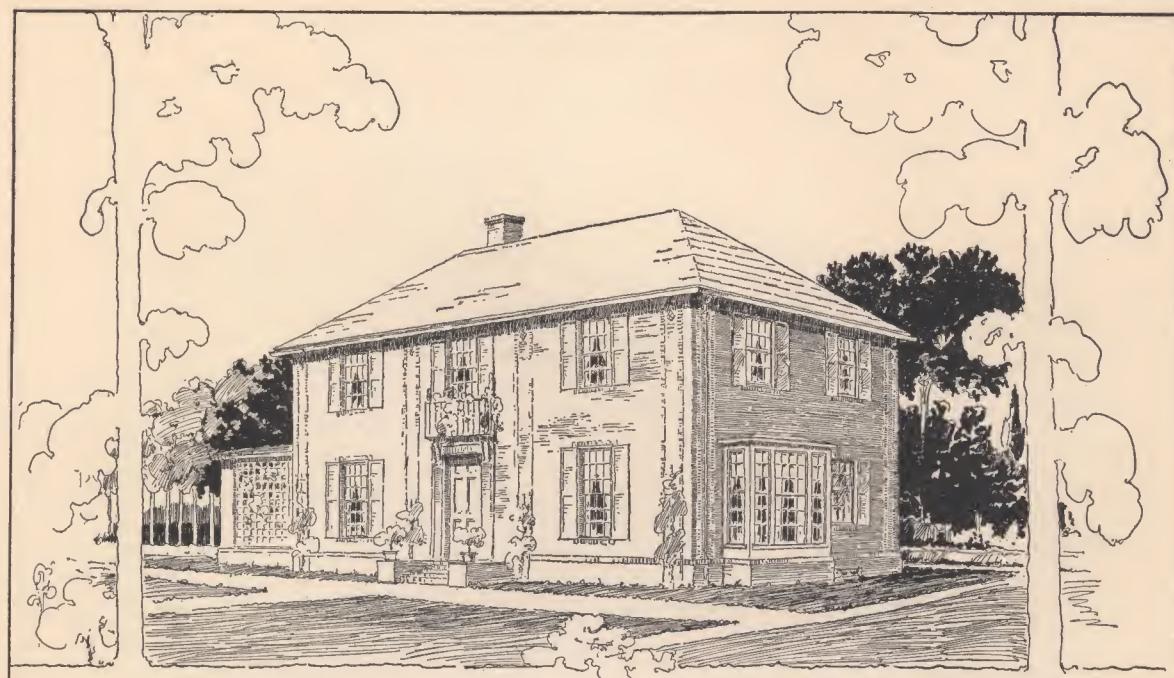
## The Hy-tex House



DESIGN BY ANTONIN A. RAYMOND  
548 Riverside Drive, New York, N. Y.

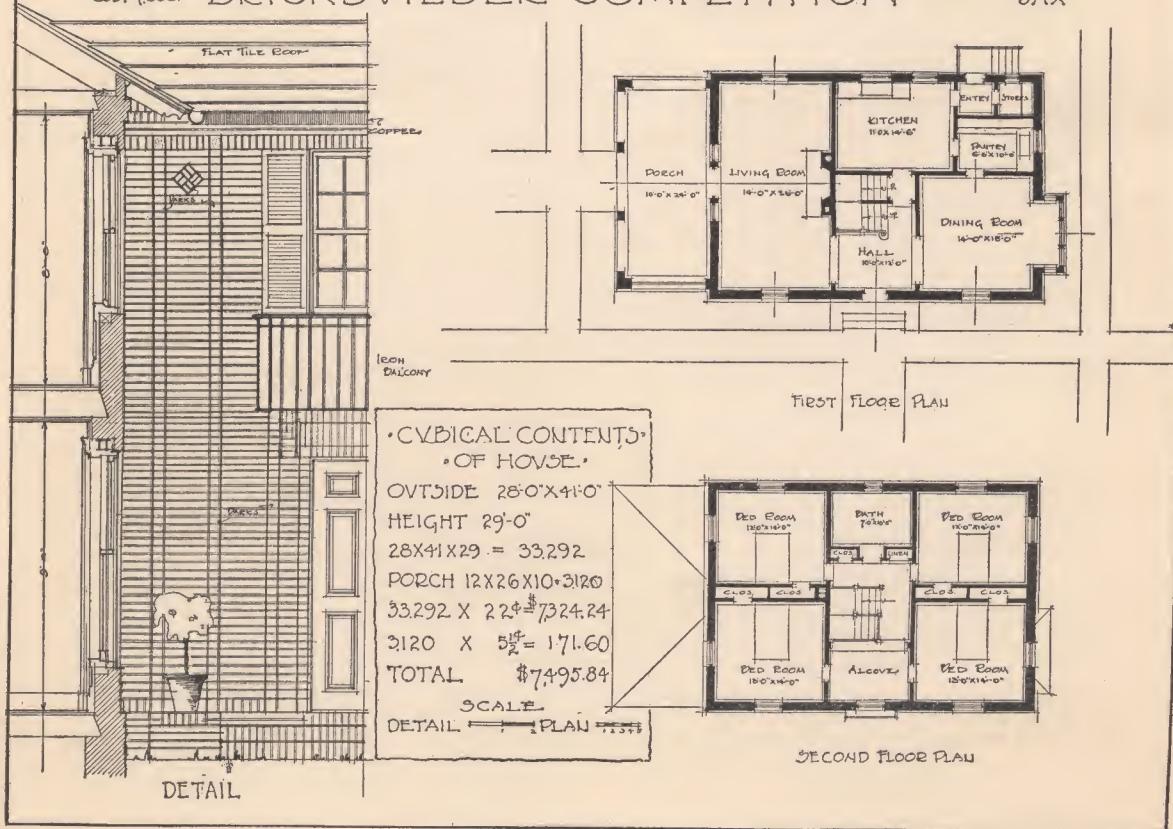
# BRICK HOUSE TO COST \$7,500 BRICKBUILDER COMPETITION

The Hy-tex House



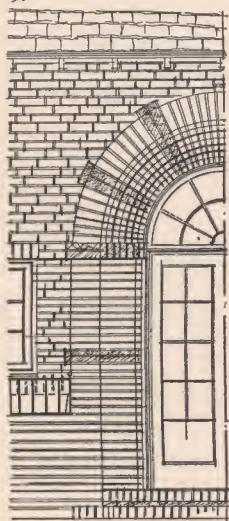
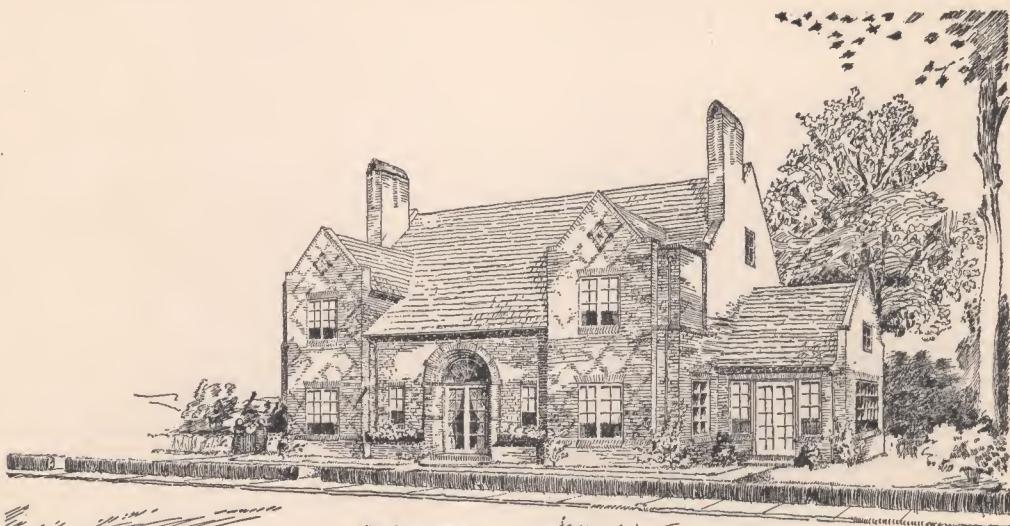
BRICK HOUSE  
COST \$1500.

SUBMITTED BY  
JAX



DESIGN BY JOHN MATTHEW GRAY  
20 Beacon Street, Boston, Mass.

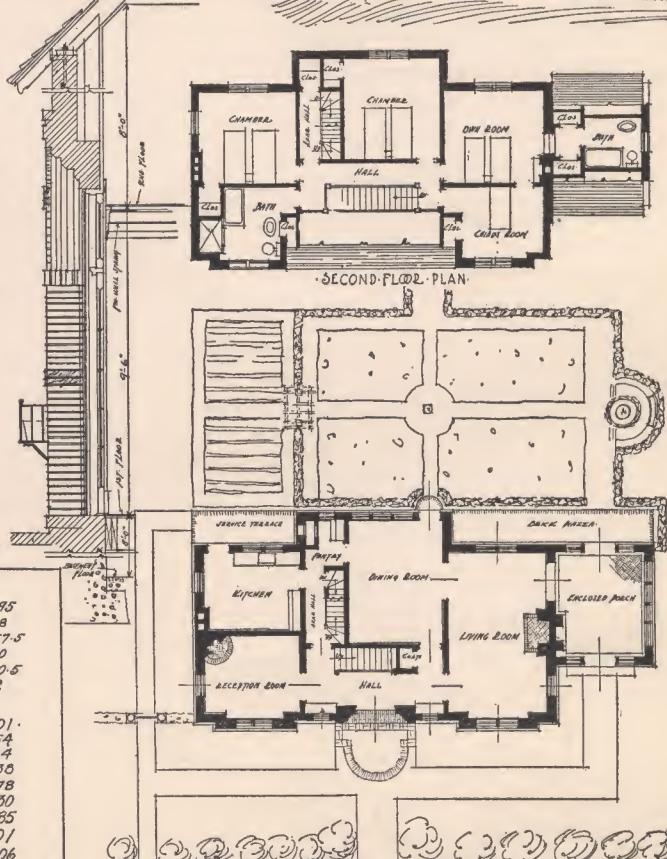
The Hy-tex House



**THE CUBAGE**  
 MAIN BUILDING 22'x45'x30'5" = 30195  
 PROTECTION AT BASE 19'x4'x30'5" = 2318  
 BAYS 2'x10'x3'x30'5" = 437.5  
 PORCH 1'4" x 12'1" x 7'18" = 810  
 TOTAL CUBAGE = 33780.5  
 COST AT 22¢ PER CU.FT. \$7432

ITEMS OF COST:

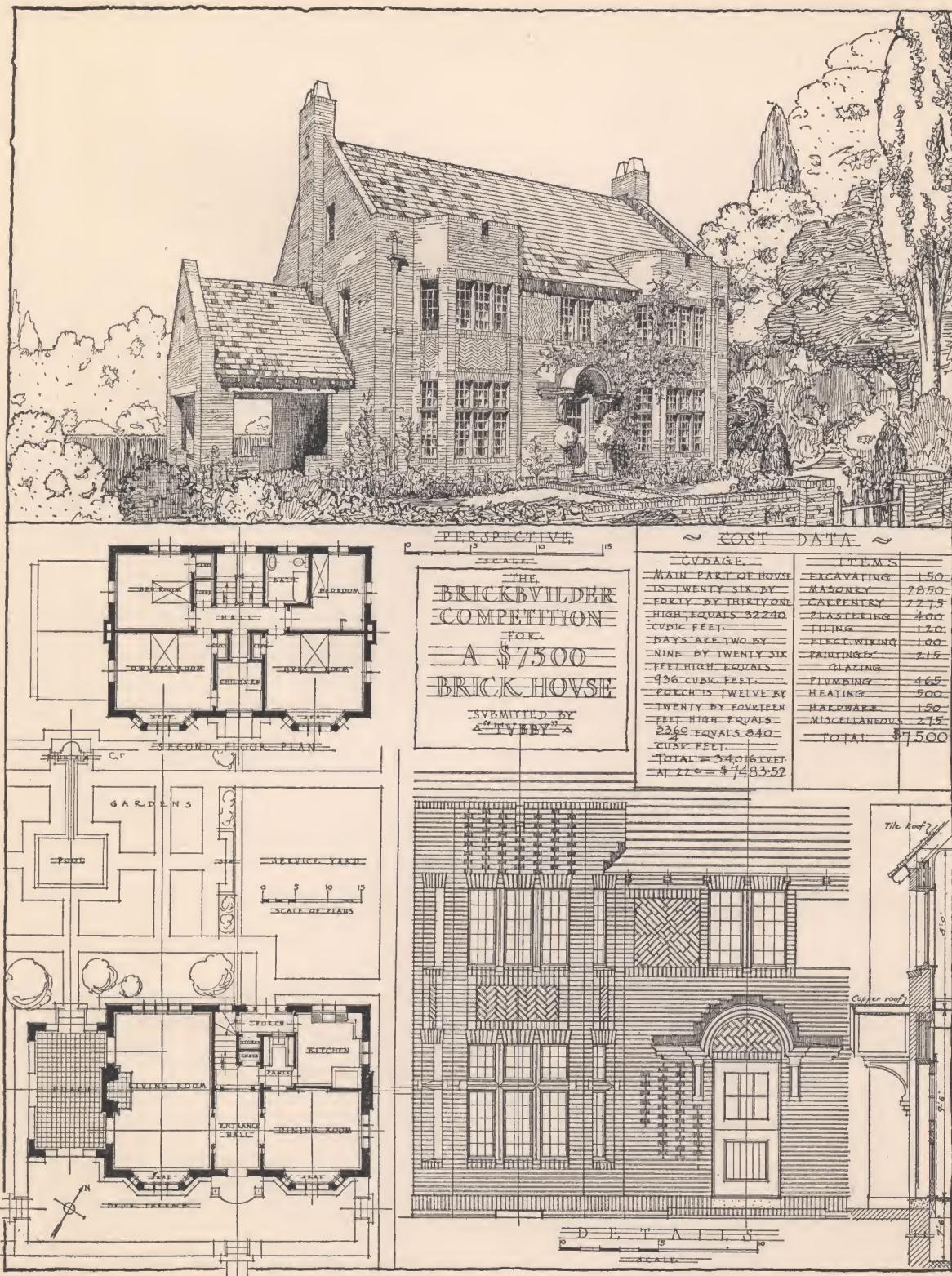
EXCAVATING	301.
BRICK	2354
PLASTERING	364
LUMBER & CARPENTRY	1735
MILL WORK	1078
PAINTING	330
ELECTRIC WIRING	65
HARDWARE	101
PLUMBING	606
HOT AIR HEATING	226
MISCELLANEOUS	49
TOTAL COST	\$7432



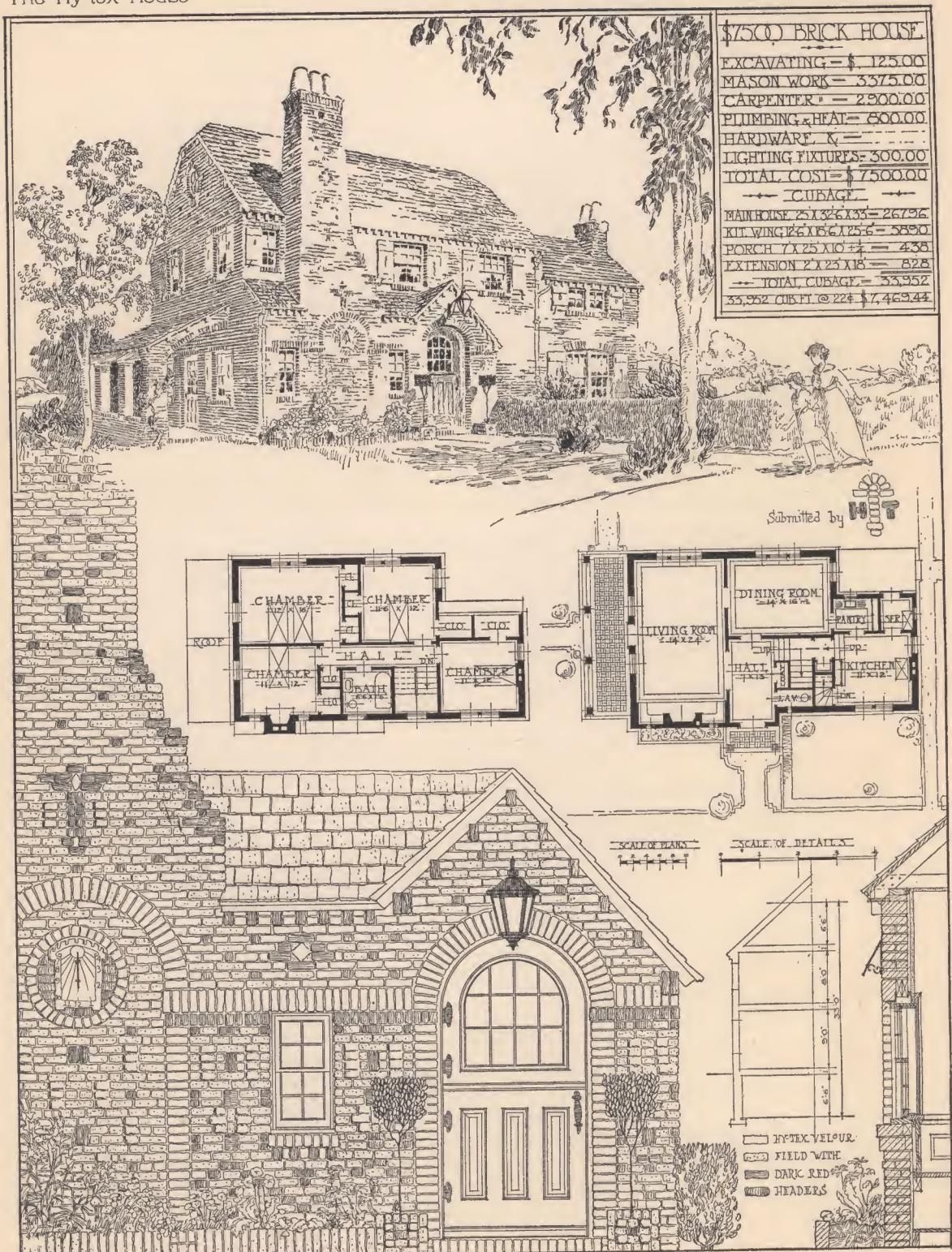
• BRICKBUILDER • COMPETITION FOR A BRICK HOUSE •  
 TO COST \$7500.00 • SUBMITTED BY "COVNT" •

DESIGN BY E. D. STONEROD  
 R. F. D. No. 4, Bellevue Br., Pittsburg, Pa.

The Hy-tex House

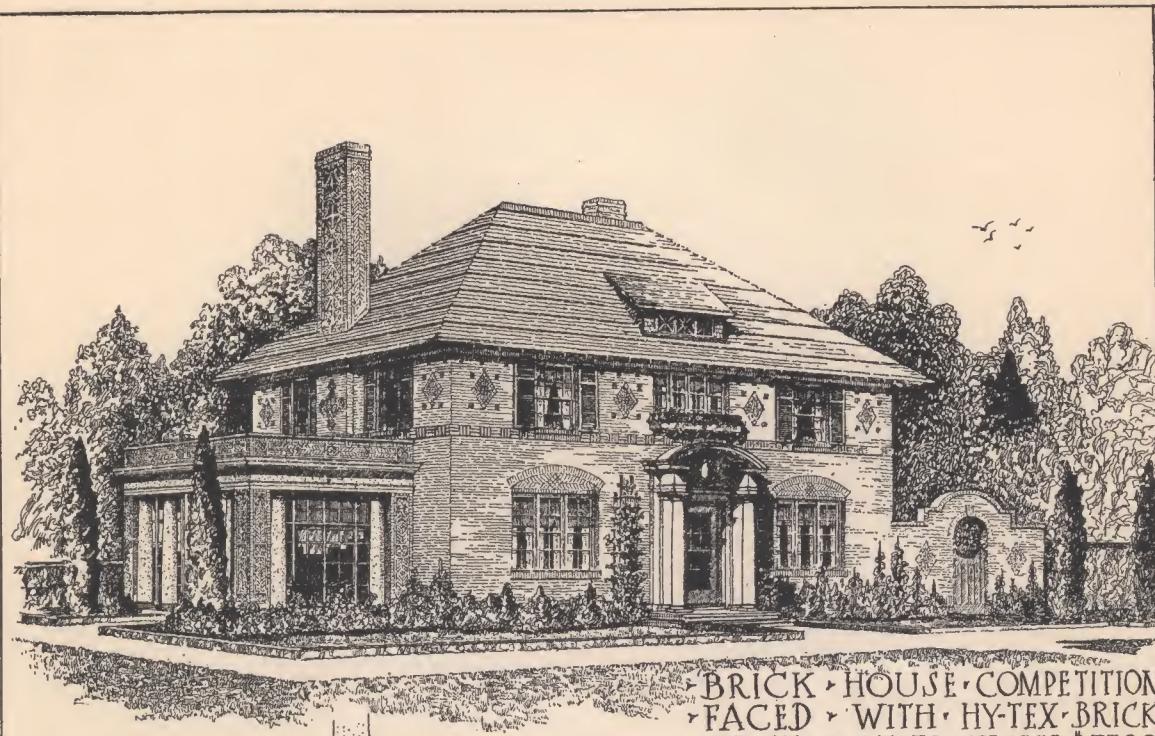


The Hy-tex House



DESIGN BY RICHARD S. PALLESEN  
 345 Fifth Avenue, New York, N. Y.

The Hy-tex House



BRICK HOUSE COMPETITION  
FACED WITH HY-TEX BRICK  
COST NOT TO EXCEED \$7500

**FIRST FLOOR PLAN:**

- LIVING-RM: 14'6" x 24'6"
- KITCHEN: 12'6" x 12'0"
- PORCH: 6' x 12'0"
- HALL
- DINING ROOM: 14'0" x 10'0"
- ENTRANCE: 8' x 3' x 12'0"
- PANTRY: 9'6" x 6'0"
- BREAKFAST ROOM: 8' x 10'0"
- CLO.
- ROOF

**SECOND FLOOR PLAN:**

- BED ROOM: 12'3" x 12'3"
- BED ROOM: 12'3" x 12'3"
- BED ROOM: 12'3" x 12'3"
- HALL: 13'0" x 8'0"
- CLO.
- CLO.
- CLO.
- ROOF

NOTE: ROOM FINISHED IN ATTIC FOR SERVANT.

PLANS: 1 2 3 4  
SECTION: 1 2 3 4  
DETAILS: 1 2 3 4

**LEGEND:**

BODY OF HOUSE FACED WITH RED ST. LOUIS MATT □ WATER TABLE HY-TEX DIAMOND MATT STRETCHERS LAID VERTICAL & FLUSH □ BELT COURSE HY-TEX DIAMOND MATT DIAMOND PATTERNS IN FRIEZE BORDER OF HY-TEX GREY MATT CENTER DESIGN OF GOLDEN MOTTLED MATT BOTH DARK & LIGHT □ FROM WATER TABLE TO BELT COURSE BRICK LAID WITH DUTCH CROSS BOND □ ABOVE BELT COURSE IN ENGLISH BOND □ PORCH PIERS & CHIMNEYS ABOVE ROOF IN ST. LOUIS BOKHARA MEDIUM RANGE & VENETIAN RED ALL BRICKWORK □ FLUSH WHITE JOINT

**CUBAGE:**

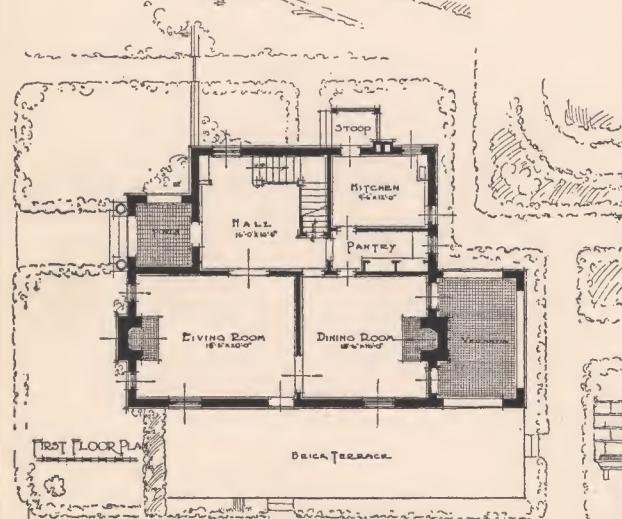
MAIN PORTION 40' x 26'6" x 31' ≈ 32860  
SIDE PORCH+PANTRY 14' x 6' x 12' (4) ≈ 252  
ENCLOSED PORCH: 13' x 12' x 12' (4) ≈ 684  
FRONT ENTRANCE: 8' x 3' x 12' (4) ≈ 72  
COST: \$7450.96 ≈ \$0.22 x 33868

**ITEMS WITH COSTS:**

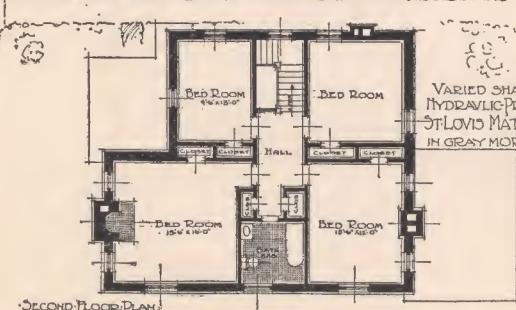
EXCAVATING	125
HY-TEX BRICK	1000
MASON WORK	1650
PLASTERING	600
CARPENTRY	2500
PLUMBING	400
HEATING	375
PAINTING	500
ELECTRIC WIRING	125
HARDWARE	125
MISCELLANEOUS	300
<b>Total</b>	<b>\$7500</b>

The Hy-tex House

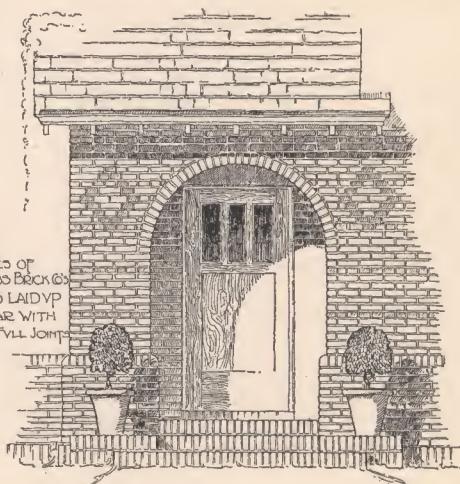
SUBMITTED BY



CUBAGE.	
BASEMENT	15 X 30 X 7 = 3150 CUB.FT.
MAIN PART	17 X 38 X 26 = 16796 "
HALL-KITCHEN ETC.	15 X 30 X 26 = 11700 "
ENTRANCE PORCH	9 X 8 X 12 + 4 = 216 "
VERANDA	11 X 17 X 12 + 4 = 561 "
KITCHEN ENTRY	5 X 6 X 10 + 4 = 75 "
2 CHIMNEYS	4 X 1 X 30 = 240 "
TOTAL CUB.FT.	32730 "
COST PER CUB.FT.	.22 CTS.
TOTAL COST	\$7202.36



VARIED SHADES OF  
HYDRAULIC PRESS BRICK &  
ST. LOUIS MATTES LAID UP  
IN GRAY MORTAR WITH  
8 FULL JOINTS



• BRICKBUILDER COMPETITION • ~ A: \$7500.00 BRICK HOUSE •

DESIGN BY JAMES L. GATLING  
504 Southern Trust Building, Little Rock, Ark.

The Hy-tex House

SCALE OF PERSPECTIVE

**SCHEDULE CUBAGE & MATERIALS**

LIVING ROOM WING - 15x21x26 =	8.820
CENTRAL HALL ETS - 21x21x28 =	1.234.8
DINING ROOM WING - 13x14x28 =	5.880
KITCHEN WING - 16x13x26 =	5.408
BAY WINDOWS - 2/3x10x19 =	1.197
CHIMNEYS - 7/8x2x35 =	.420
<b>TOTAL CUBAGE</b>	<b>= 24.073</b>
<b>TOTAL COST OF HOUSE</b>	
24.073 CUBIC FEET @ 22¢ = \$537.10	
BUCKWOLK TO BE HY-TEX IN TWO COLOURS - DARK RED STRETCHERS WITH HEADERS VARYING TO A PURPLE TEXTURE TO BE HY-TEX NO 17 - FLEMISH DOUBLE STRETCHER BOND HALF INCH JOINT % WITH EVERY FOURTH ROW HEADERS & ROOF TO BE GRADUATED SLATE WITH MALLETED COPPER RIDGE - WINDOWS TO BE CASEMENTS WITH LEADED GLASS &	

**SECTION**

**SECOND FLOOR PLAN**

**HALF INCH DETAIL OF BAY WINDOW**

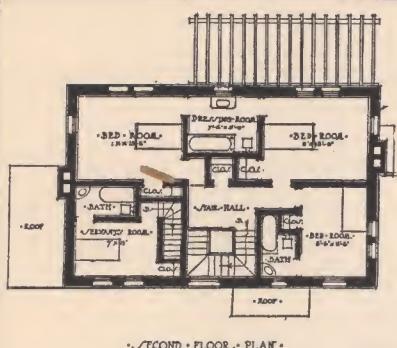
**FIRST FLOOR PLAN**

**BRICKBUILDER COMPETITION FOR A \$ 7500 BRICK HOUSE**

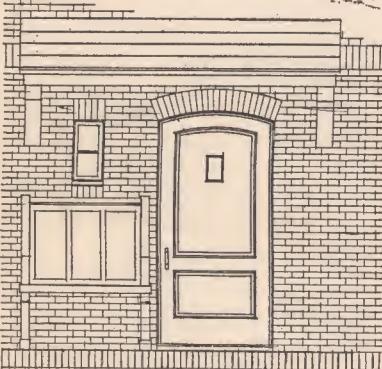
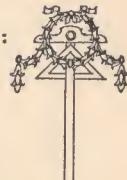
DESIGN BY FRANCIS L. S. MAYERS  
2 West 47th Street, New York, N. Y.

The Hy-tex House

# COMPETITION FOR A BRICK HOUSE TO COST SEVENTY-FIVE HUNDRED DOLLARS

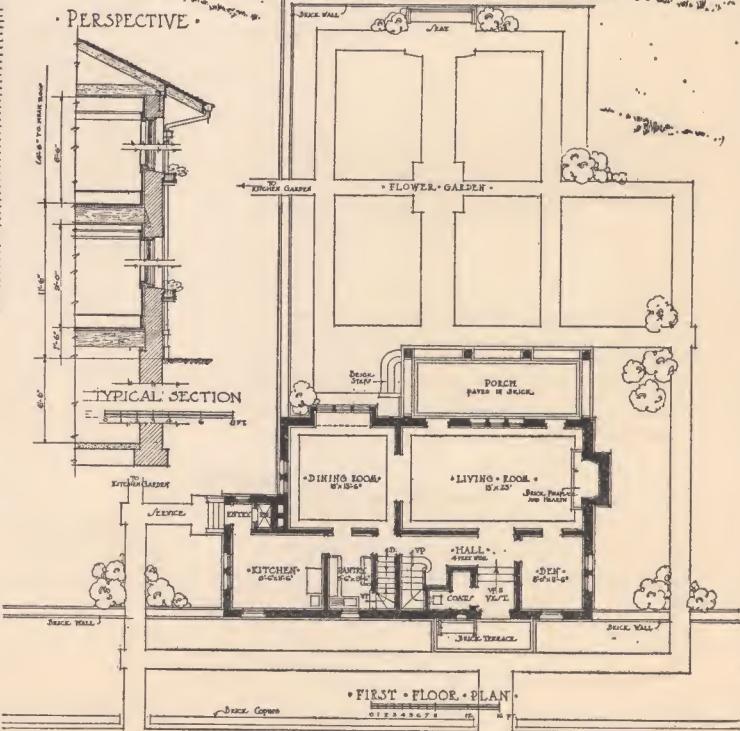


SUBMITTED BY:



•DETAIL OF ENTRANCE.

•CUBAGE OF HOUSING		675.FT.
BASMENT TO GRADE	975 SQ.FT.	6 1/2 IN.
GRADE TO 2ND FLOOR LEVEL	1060 SQ.FT.	11 1/2 IN.
2ND FLOOR LEVEL TO MEAN ROOF	975 X 14 1/2	EQ.12320
FORCES		141358
DINING ROOM, DAY		625
CHIMNEYS		120
		400
TOTAL CUBAGE : 33941		
COST FIGURED AT 22 CENTS PER CUBIC FOOT		
33941 x 22 = \$ 74,722.02		
ITEMIZED COST OF BUILDING		
EXCAVATING	\$ 25000	
REMOVING INCLOUDING FOOTINGS	270000	
CARPENTRY	290000	
PLUMBING	65000	
PLASTERING	50000	
PAINTING	35000	
HEATING	35000	
ELECTRIC WIRING AND FIXTURES	40000	
HARDWARE	25000	
TOTAL COST \$74,500.00		



DESIGN BY GEORGE RICHARD KLINKHARDT  
Apartment 309 El Nido Apartments, Oakland, Cal.

The Hy-tex House

**FIRST FLOOR PLAN:**

- DINING ROOM & KITCHEN: 16'0" x 15'2"
- STAIR HALL: 8'0" x 6'2"
- LIVING ROOM: 16'0" x 12'2"
- PANTRY: 6'0" x 2'11"
- VESTIBULE: 4'4" x 12'1"
- PORCH: 10'0" x 12'1" x 12'4"
- TOTAL CUBIC CONTENTS: 33198 cu. ft.
- TOTAL COST AT \$2.25 CDO. PER CU. FT.: \$ 750350

**ITEMS OF COST:**

MASONRY	\$100.00
CARPENTRY	1460.00
CUT STONE	150.00
PLUMBING	475.00
HEATING	400.00
ELECTRIC WIRING	135.00
PLASTERING	450.00
PAINTING	350.00
GLAZING	110.00
LIGHTING FIXTURES	100.00
HARDWARE	200.00
MISCELLANEOUS	90.00
TOTAL COST	7500.00

**SECOND FLOOR PLAN:**

**BRICK BUILDER COMPETITION FOR A BRICK HOUSE TO COST \$7500<sup>00</sup>**

SCALE OF PLANS  
5 10 15 20 24

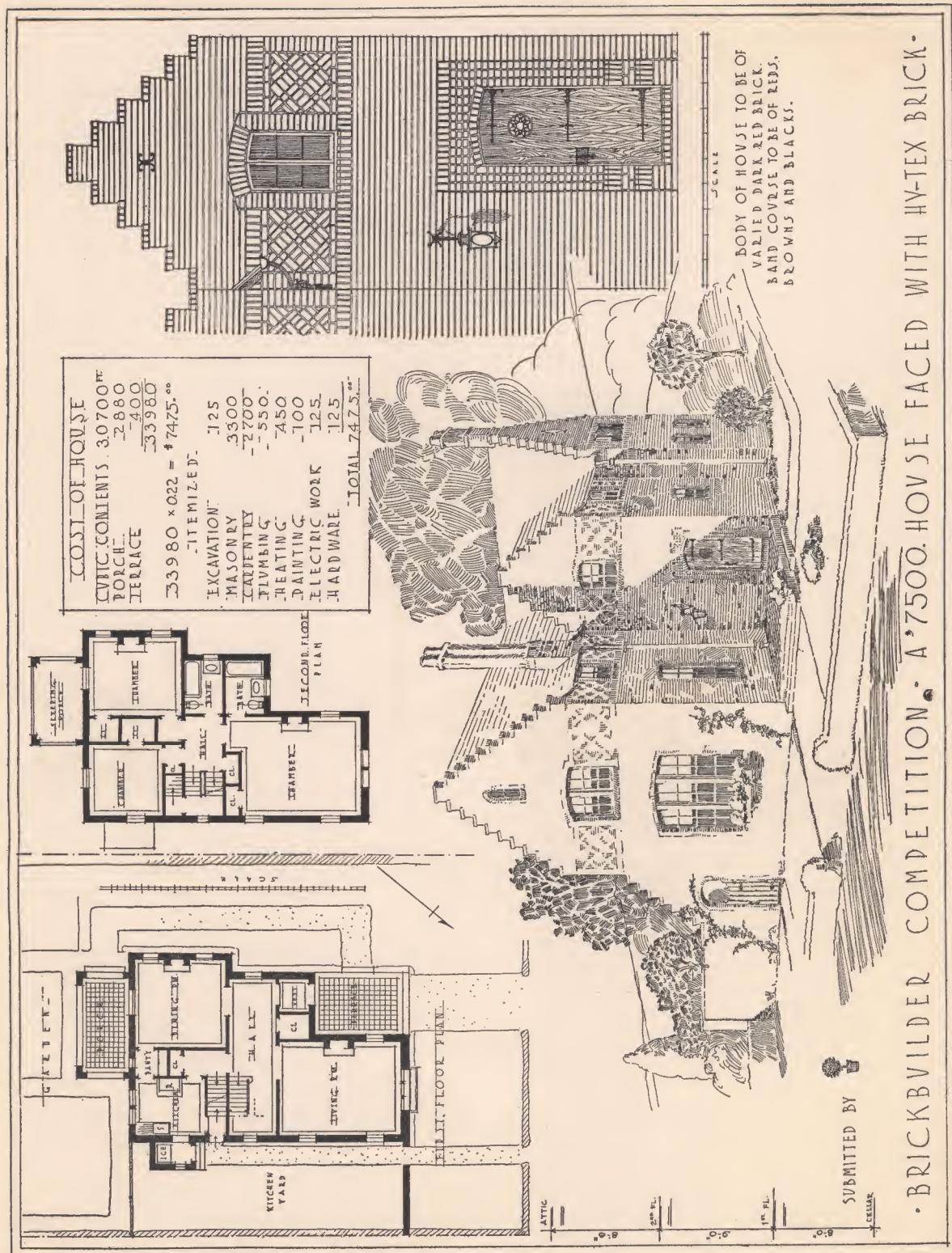
SCALE OF DETAILS  
5 10 15 20 24

SUBMITTED BY:  
HUGH BAKER DUNNING

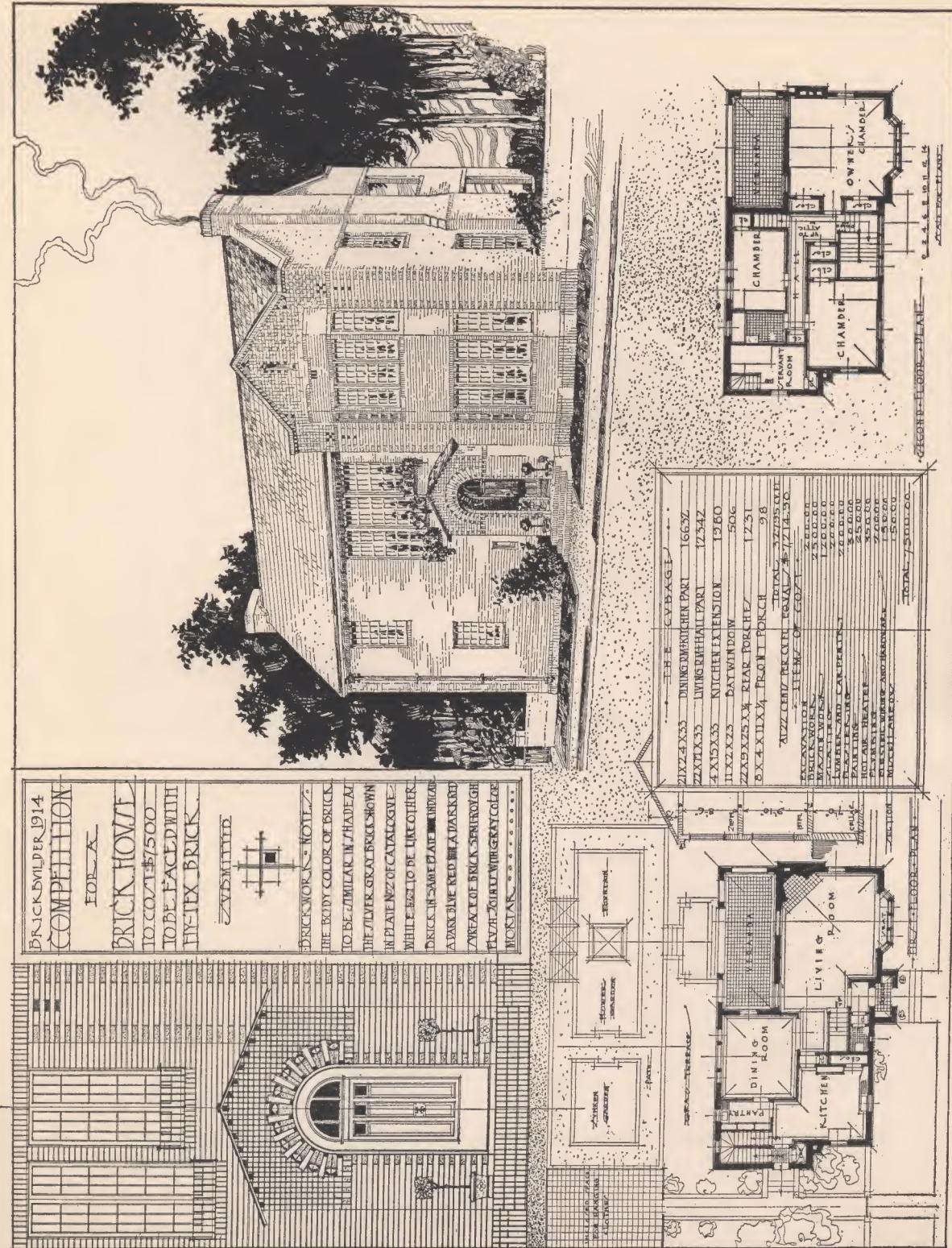
FACE BRICK TO BE HY-TEX, MIXED BROWN "VELOUR", MORTAR COLOR DARK BROWN, BRICK TO BE LAID WITH  $\frac{1}{2}$  IN. BED JOINTS, RAKED DEEP CROSS JOINTS STRUCK FLUSH, ALL PAVEMENTS TO BE OF HY-TEX NO. 505, GRAY, WITH BROWN MARGIN - ROOF SHINGLES STAINED GREEN.

DESIGN BY HUGH BAKER DUNNING  
35 South Dearborn Street, Chicago, Ill.

The Hy-tex House



The Hy-tex House



DESIGN BY GUSTAVE G. VIGOUROUX  
50 West 84th Street, New York, N. Y.

The Hy-tex House

The illustration shows a two-story brick house with a gambrel roof, a central entrance, and a side porch. Below the house are two detailed floor plans. The left plan, labeled 'FIRST FLOOR PLAN', includes a Kitchen, Dining Room, Living Room, and a rear Porch. The right plan, labeled 'SECOND FLOOR PLAN', shows four bedrooms and a Bath. A scale bar at the bottom indicates 1/4 inch equals 10 feet.

**THE MAIN PORTION OF THE HOUSE IS FORTY BY TWENTY & THIRTY SIX FEET IN HEIGHT GIVING THIRTY THREE THOUSAND TWO HUNDRED CUBIC FEET. THE PORCH IN THE REAR CONTAINS SEVEN HUNDRED AND FIFTY CUBIC FEET. THESE CUBAGES MULTIPLIED BY TWENTY TWO CENTS EQUALS SEVENTY FIVE HUNDRED & SIXTY DOLLARS. THE REMAINDER PAYS FOR FRONT ENTRANCE STEPS ETC. A FLEMISH BOND OF RED BRICK FOR MAIN WALL SURFACES. MOULDED BRICK ON FRONT ENTRANCE.**

**SUBMITTED BY  
MF. FEBRUARY 10, 1914**

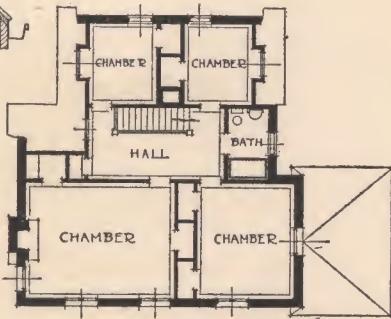
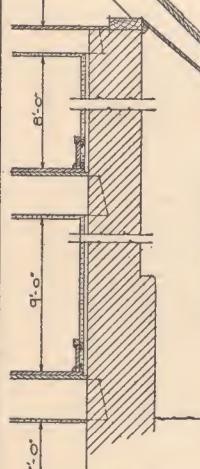
**THE BRICKBUILDER COMPETITION  
A SEVENTY FIVE HUNDRED DOLLAR HOUSE**

DESIGN BY ALFRED P. SHAW  
50 Adams Street, Dorchester, Mass.

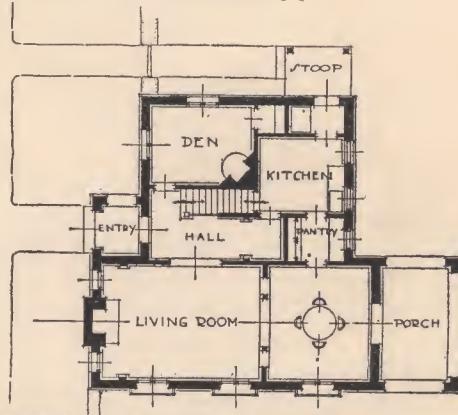
The Hy-tex House



SUBMITTED BY



SCALE OF PLANS



**COMPETITION FOR A BRICK HOUSE**

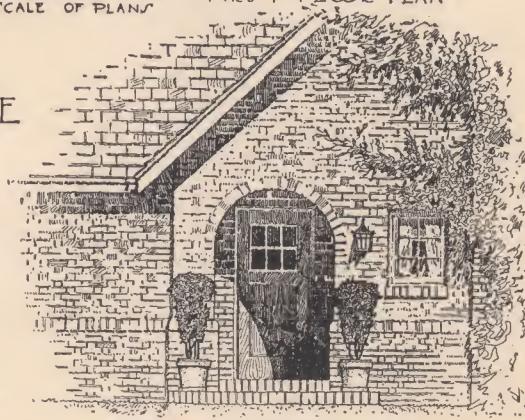
→ TO COST \$7500 →

«CUBAGE»

LIVING & DINING ROOMS	- 16'-6" X 36'-0" - 594 <sup>cu</sup>
WING	- 26'-6" X 20'-0" - 530 -
ENTRY	- 6'-0" X 7'-6" - 4 - 13 -
PORCH	- 10'-0" X 6'-6" - 4 - 41 -
TOTAL NO. OF SQ. FT.	- 1178 <sup>sq</sup>
28'-6" X 1178 <sup>sq</sup> -	33573 CU. FT.

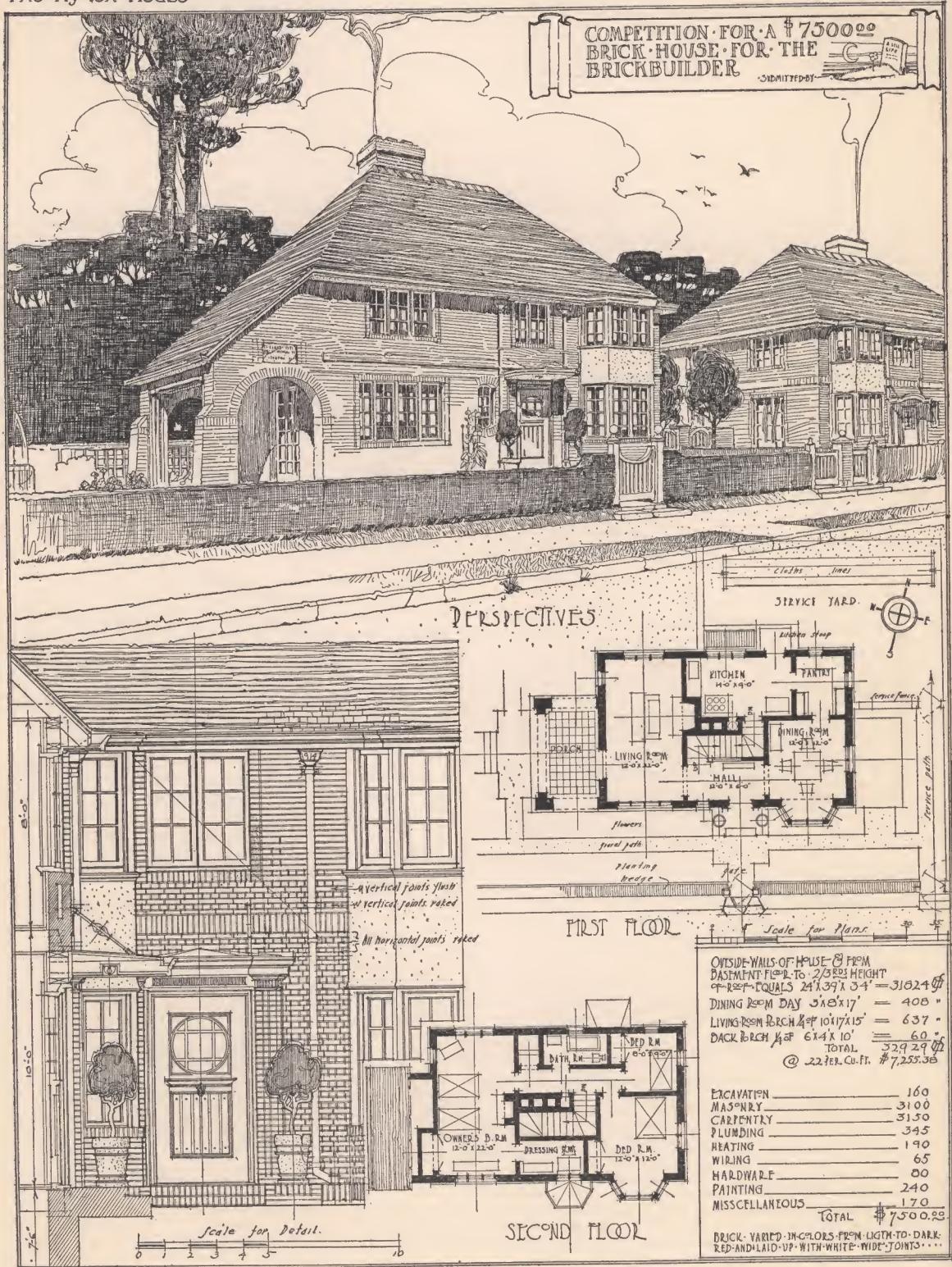
\$0.22

COST	- \$7,386.06
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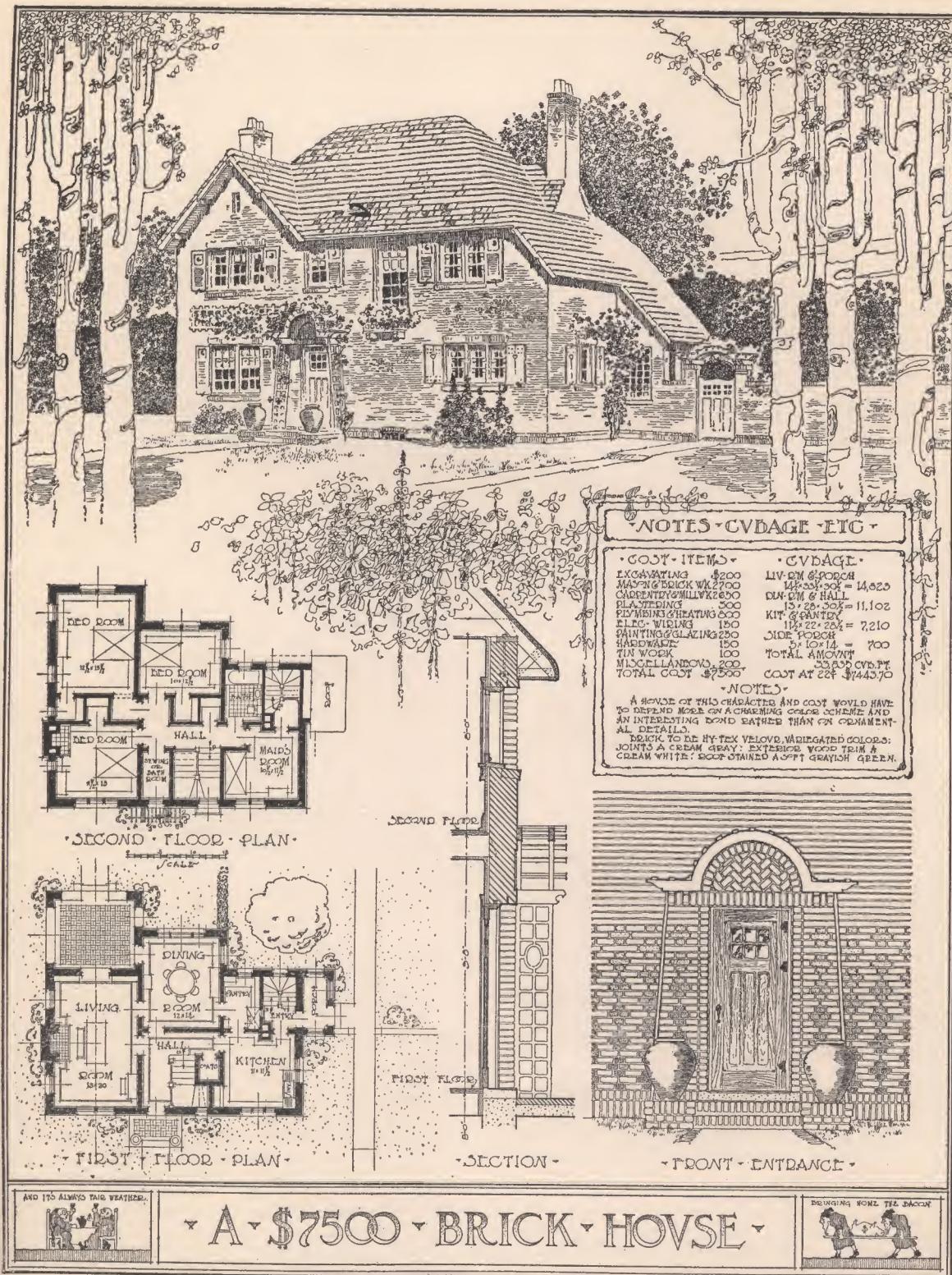
DESIGN BY EUGENE ROBERT SCHULZ  
910 Tribune Building, Chicago, Ill.

The Hy-tex House



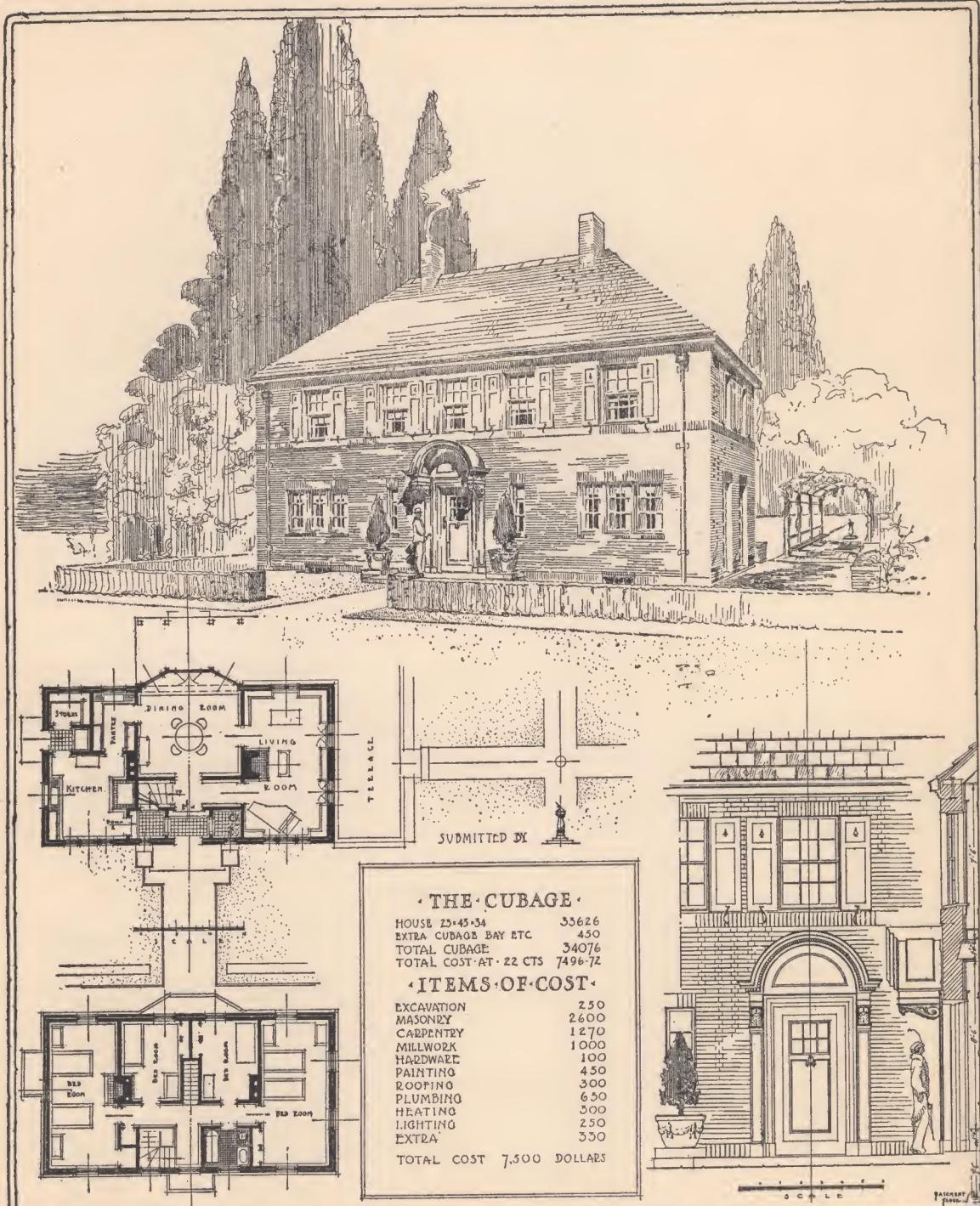
DESIGN BY LOUIS C. ROSENBERG  
169 St. Botolph Street, Boston, Mass.

The Hy-tex House



DESIGN BY OSCAR T. LANG  
345 McKean Dormitory, U. of P., Philadelphia, Pa.

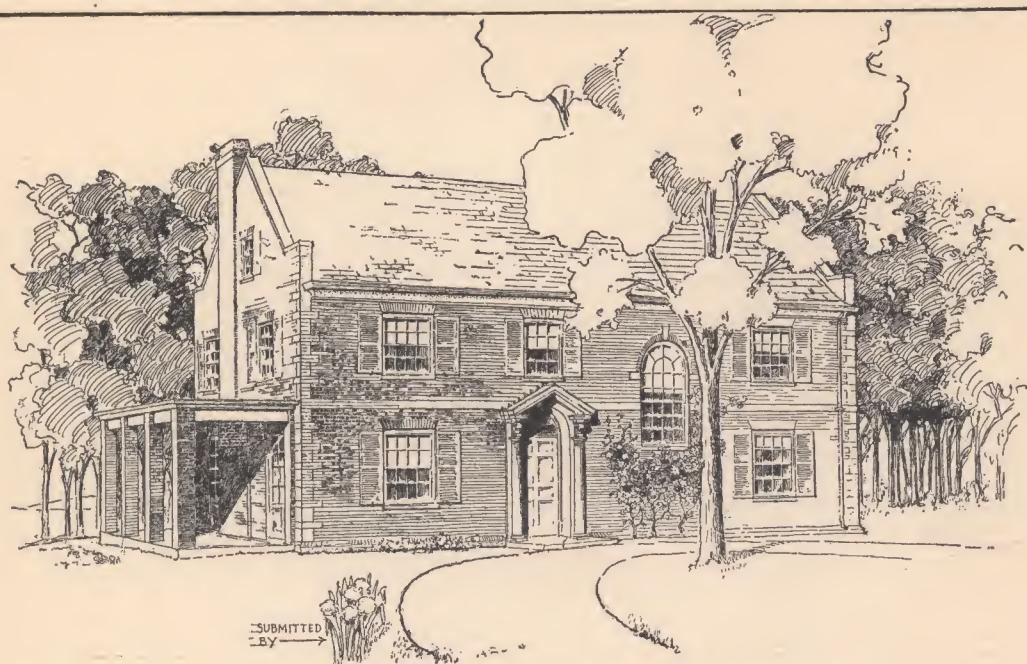
The Hy-tex House



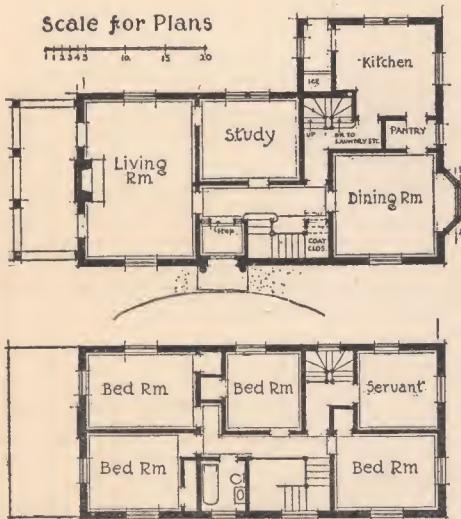
COMPETITION FOR A BRICK HOUSE TO COST \$7,500

DESIGN BY WALTER GRANT THOMAS AND WILLIAM E. BAKER, JR.  
101 Park Avenue, New York, N. Y.

The Hy-tex House

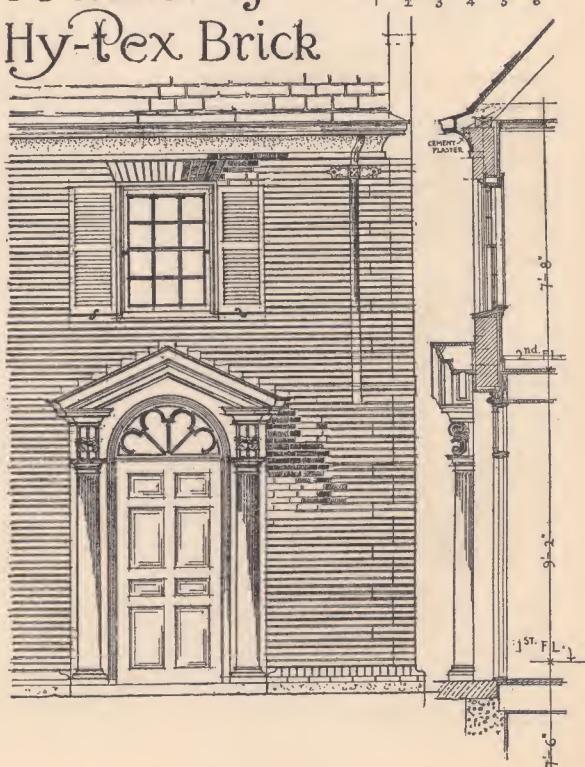


Scale for Plans



A house of  
Hy-Tex Brick

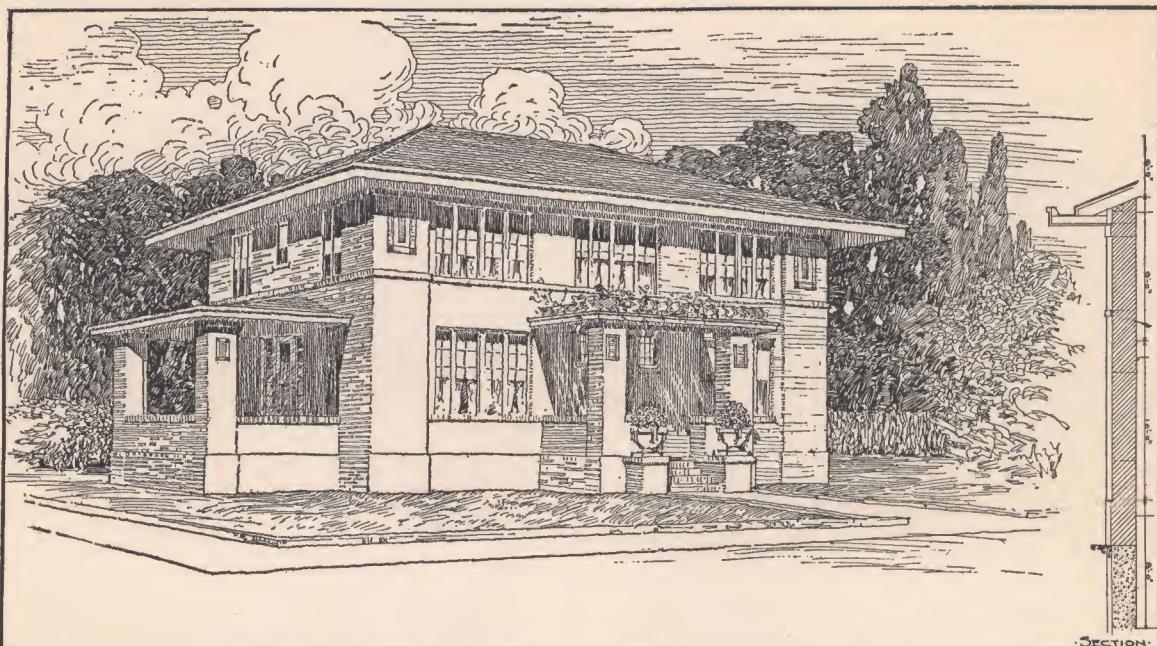
Scale for Details



MAIN PORTION	$22 \times 46 \times 30 = 30360$
KITCHEN ELL	$9 \times 18 \times 18 = 2916$
PORCH	$\frac{1}{4} \text{ OF } 8 \times 20 \times 12 = 480$
TOTAL CUBE = 33756	
AT 22¢ PER CU-FT =	
\$ 7,426.32	

DESIGN BY CHARLES W. CLEARY  
120 Boylston Street, Boston, Mass.

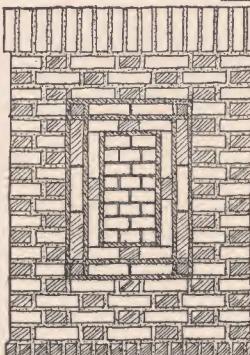
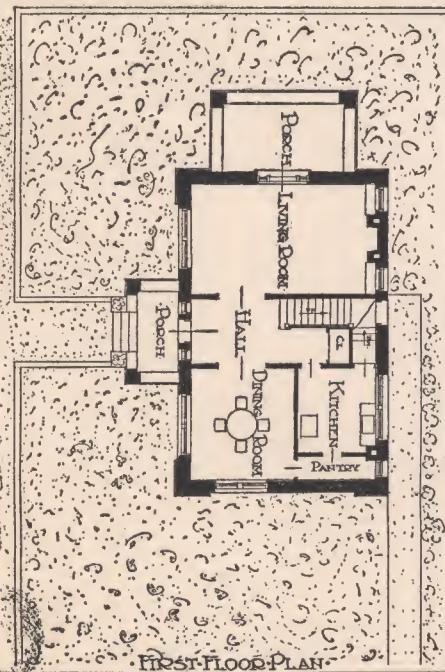
The Hy-tex House



SECTION.

#7500 HYTEX BRICK  
HOUSE COMPETITION OF  
THE BRICKBUILDER

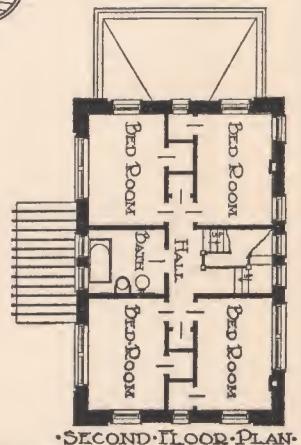
SUBMITTED BY



DETAIL OF BRICK.



SCALE OF PLANS.



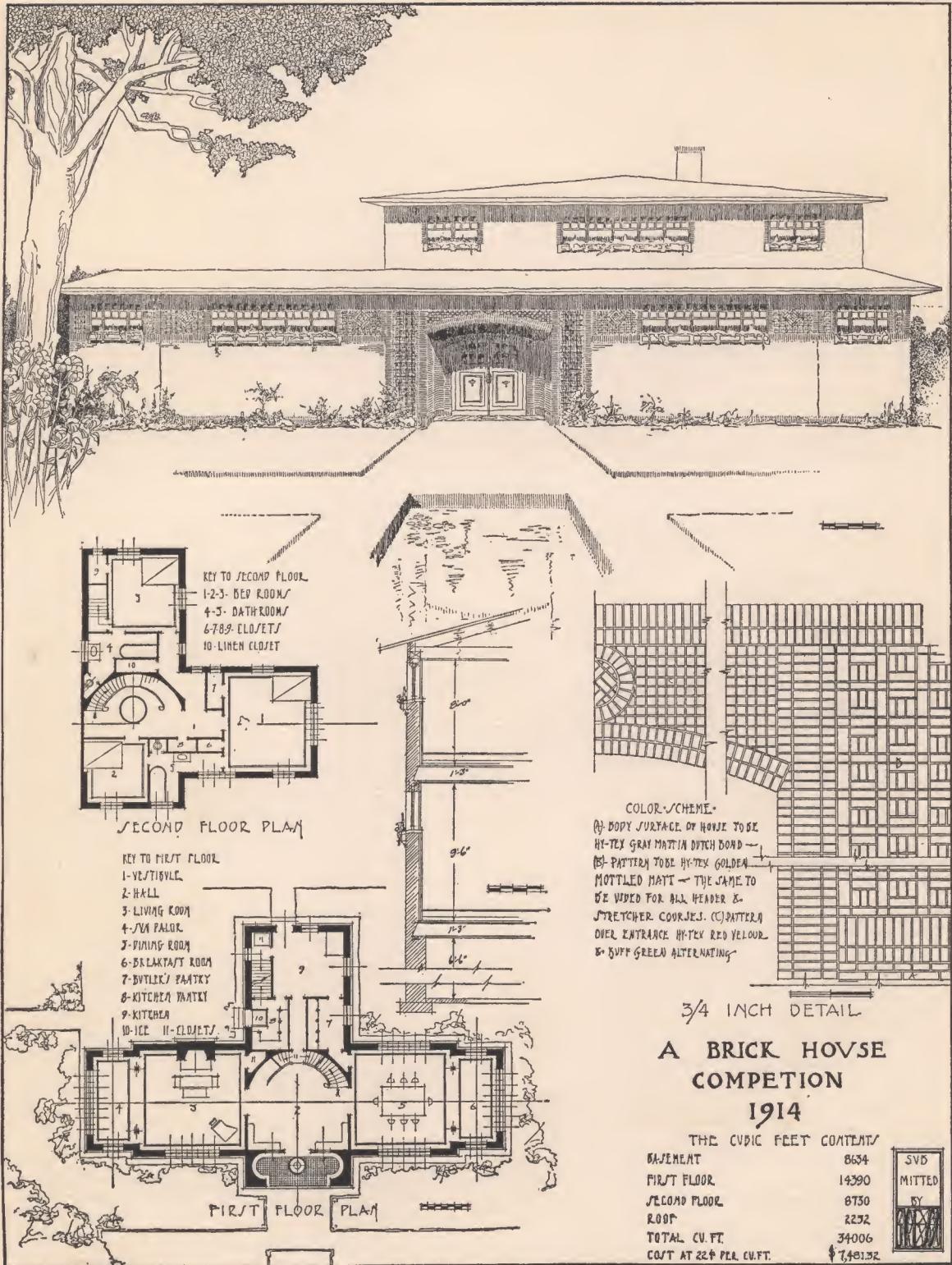
CUBIC CONTENTS

BASMENT	40X26X8 <sup>1</sup> /22	1830.40
1 <sup>ST</sup> STORY	40X26X10 <sup>1</sup> /22	2288.00
2 <sup>ND</sup> STORY	40X26X9 <sup>1</sup> /22	2059.20
ATTIC	40X26X4 <sup>1</sup> /22	915.20
PORCH	18X10X18 <sup>1</sup> /22	176.20
PORCH	18X10X13 <sup>1</sup> /22	138.60
TOTAL.		\$ 7409.60

RICH DROWN  
= DARK STEEL GREY MATT'S  
DARK DROWN MORTAR JOINT 1/2" WIDE

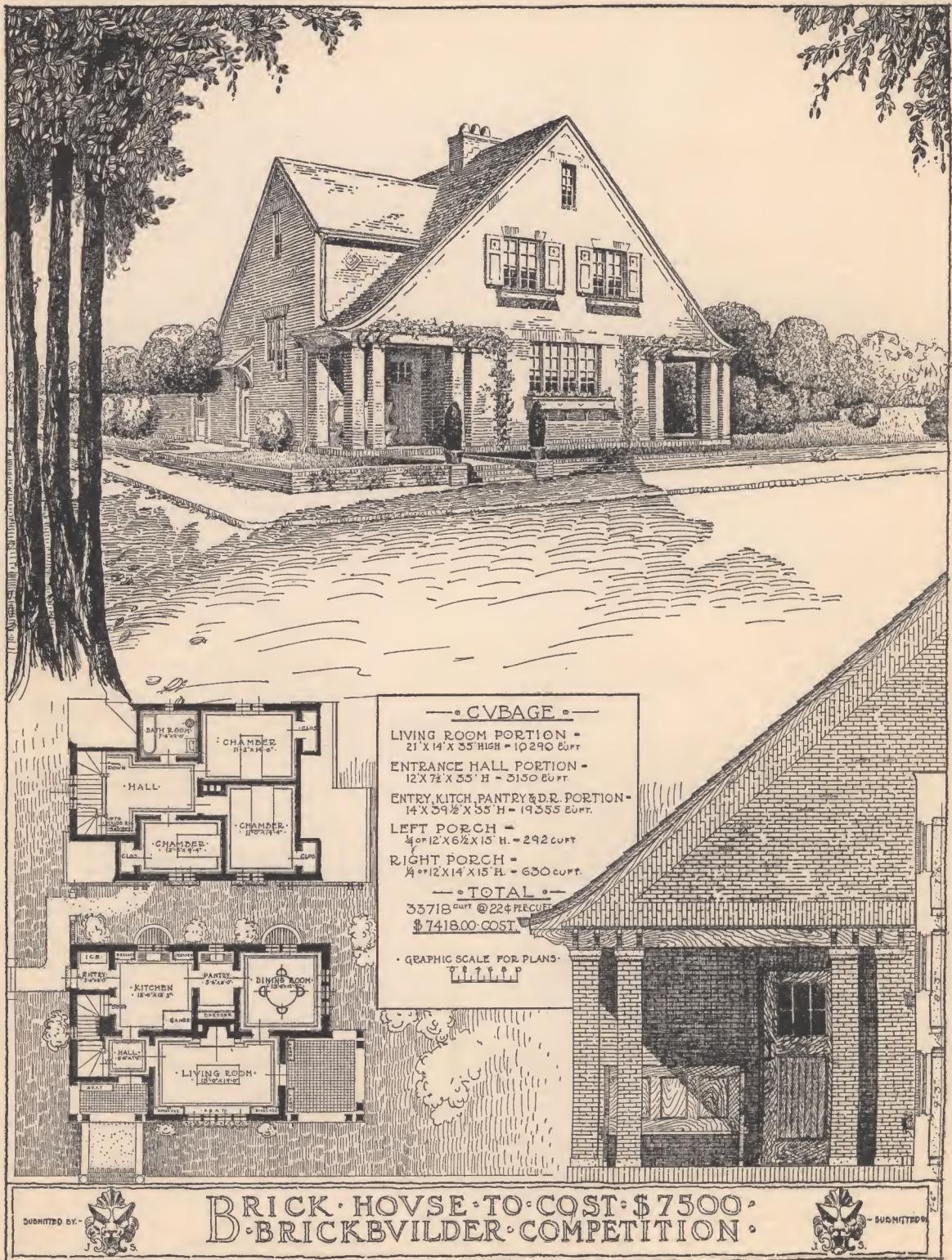
DESIGN BY JACK TRAVNICEK  
720 Tribune Building, Chicago, Ill.

The Hy-tex House



DESIGN BY JACK FRANK  
43 West 48th Street, New York, N. Y.

## The Hy-tex House



DESIGN BY JAMES M. SCHEINER  
770 Linden Street, Brooklyn, N. Y.

The Hy-tex House

**CUBAGE**

HEIGHT OF STORES - CELLAR	7' 0"
MAIN FLOOR	8' 0"
SECOND FLOOR	8' 0"
% DISTANCE FROM HIGHEST CORNICE-RIDGE	8' 0"
TOTAL HEIGHT	31' 6"
AREA OF MAIN PORTION - 45'6"19' X 31'6" - 27231.75 C.U.D.	
" LIVING-ROOM WING - 16' X 6' X 16' - 3276 "	
" DINING ROOM WING - 16' X 6' X 16' - 3276 "	
" DORCH [sic] 7'6" X 11'0" + 4' - 12' 6" "	
" STEDS 2' 10" X 2' + 4' - 8' "	
" TERRACE 18' 6" X 12' + 4' - 46' 7" "	
TOTAL CUBAGE	33971.80 "
AT A COST OF 22¢ PER C.U.D.	\$ 7468.17

ITEMS OF APPROXIMATE COST

EXCAVATING	\$ 320	ELECTRIC WIRING	\$ 100
BRICK	12,000	HARDWARE	100
PLASTERING	550	PLUMBING	600
LUMBER-CARPENT	1300	HOT AIR HEATING	200
MILLWORK	1150	MISCELLANEOUS	1000
PAINTING	400		

SCALE FOR ELEVATION.

SUBMITTED BY

THE HY-TEX COMPANY

SECOND FLOOR PLAN

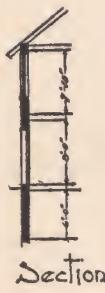
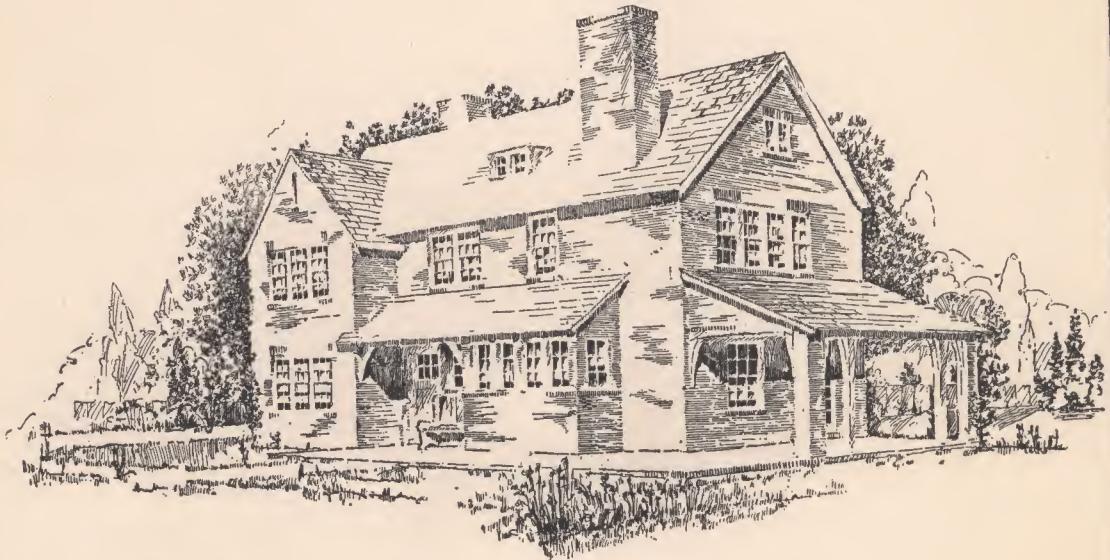
FIRST FLOOR PLAN

COLOR SCHEME  
COPINGS, ALL TRIM,  
STEPS, AND FIELD OF  
PATTERN IN UPPER  
STORY ARE OF →  
DARK GREY MATT.  
HY-TEX BRICK.  
LOWER STORY OF  
FLEMISH BOND WITH  
DARK HEADERS.  
ALL OTHER BRICKS  
WALL OF LIGHT  
GREY MATT."

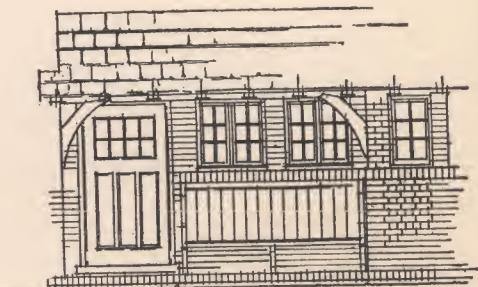
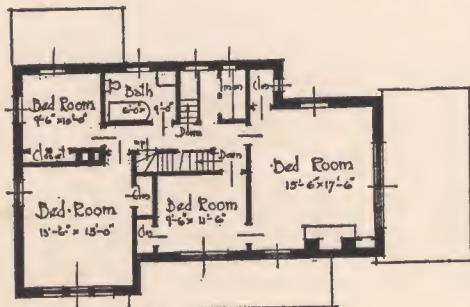
**BRICK HOUSE TO COST \$7500**  
**BRICKBUILDER COMPETITION**

DESIGN BY WILLIAM VAN KLEEK SHEPARD  
4823 Warrington Avenue, West Philadelphia, Pa.

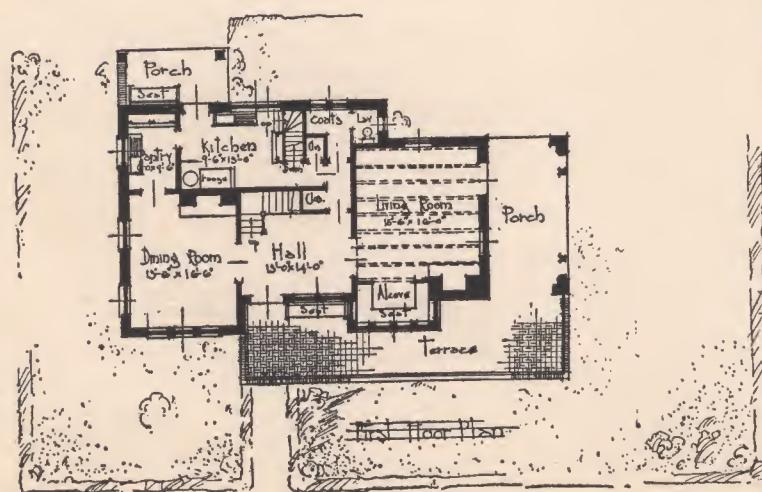
The Hy-tex House



Section



Detail of Entrance



**COMPETITION FOR A  
SEVENTY-FIVE HUNDRED  
DOLLAR BRICK HOUSE**

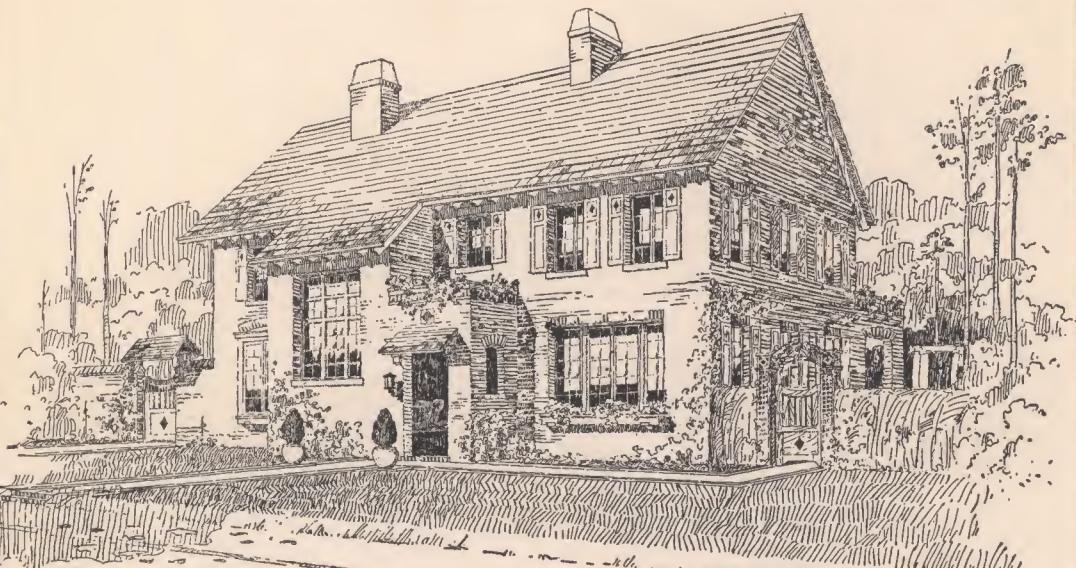
Basement Area	1173 sq. ft.
First Floor Area	173 sq. ft.
Second Floor Area	1153 sq. ft.
Porch Area	650 sq. ft.
Cubage Basement to Second Floor level.	18768 cu. ft.
Cubage Second Floor to 3/4 of Roof	13516 cu. ft.
1/4 Porch Cubage	1463 cu. ft.
Total Cubage	33827 cu. ft.
At 22¢ cu. ft.	\$7,441.94
Alternate header and stretcher courses, dark red Hy-tex Brick. Buff Hy-tex brick for fireplaces	

Mort. Plans

Detail

SUBMITTED BY

The Hy-tex House



COLOR SCHEME

DOKHARA HY-TEX BRICK OF VARIOUS SHADIES  
OF DARK BROWNISH REDS, LAID PROMISCUOUSLY  
FLEMISH BOND, PLUSH JOINTS  $\frac{1}{8}$  INCH HIGH

SCALE FOR PLANS & SECTIONS  
0 1/2" = 1'-0"

SCALE FOR DETAILS  
1" = 1'-0"

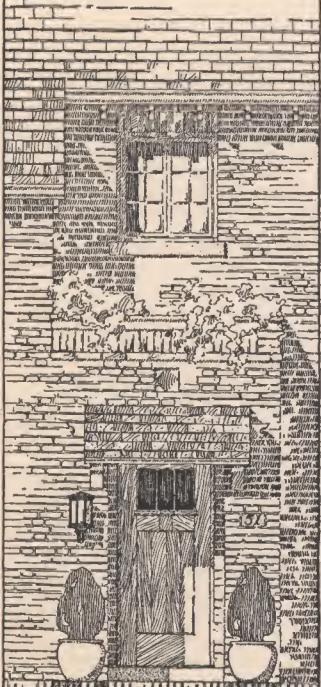
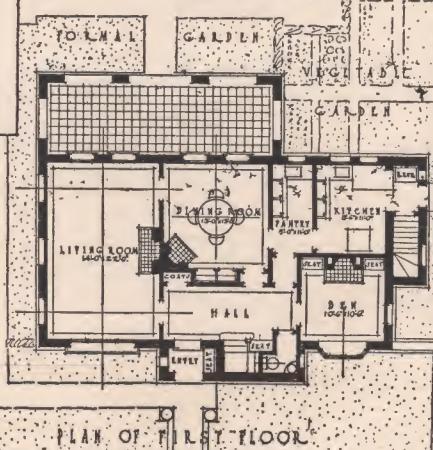
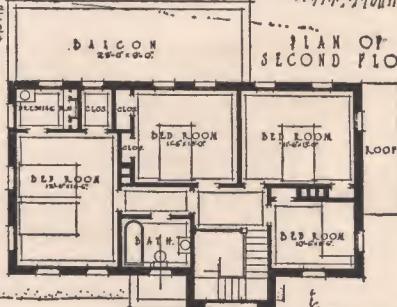
CUBIC CONTENTS

CUBIC CONTENTS OF MAIN BUILDING	44x24x30=33,000
FRONT AND REAR PORCHES	902
KITCHEN ADDITION	180
TOTAL CUBIC CONTENTS	34,082
TOTAL COST .022-	\$ 7497

ITEMS OF COST

EXCAVATING	175
BRICKWORK	2360
PLASTERING	485
LUMBER AND CARPENTRY	1510
WILLWORK	1100
PAINTING	220
HARDWARE	100
ELECTRIC WIRING	200
PLUMBING	450
HEATING	300
MISCELLANEOUS	600
TOTAL COST	\$ 7500

PLAN OF SECOND FLOOR



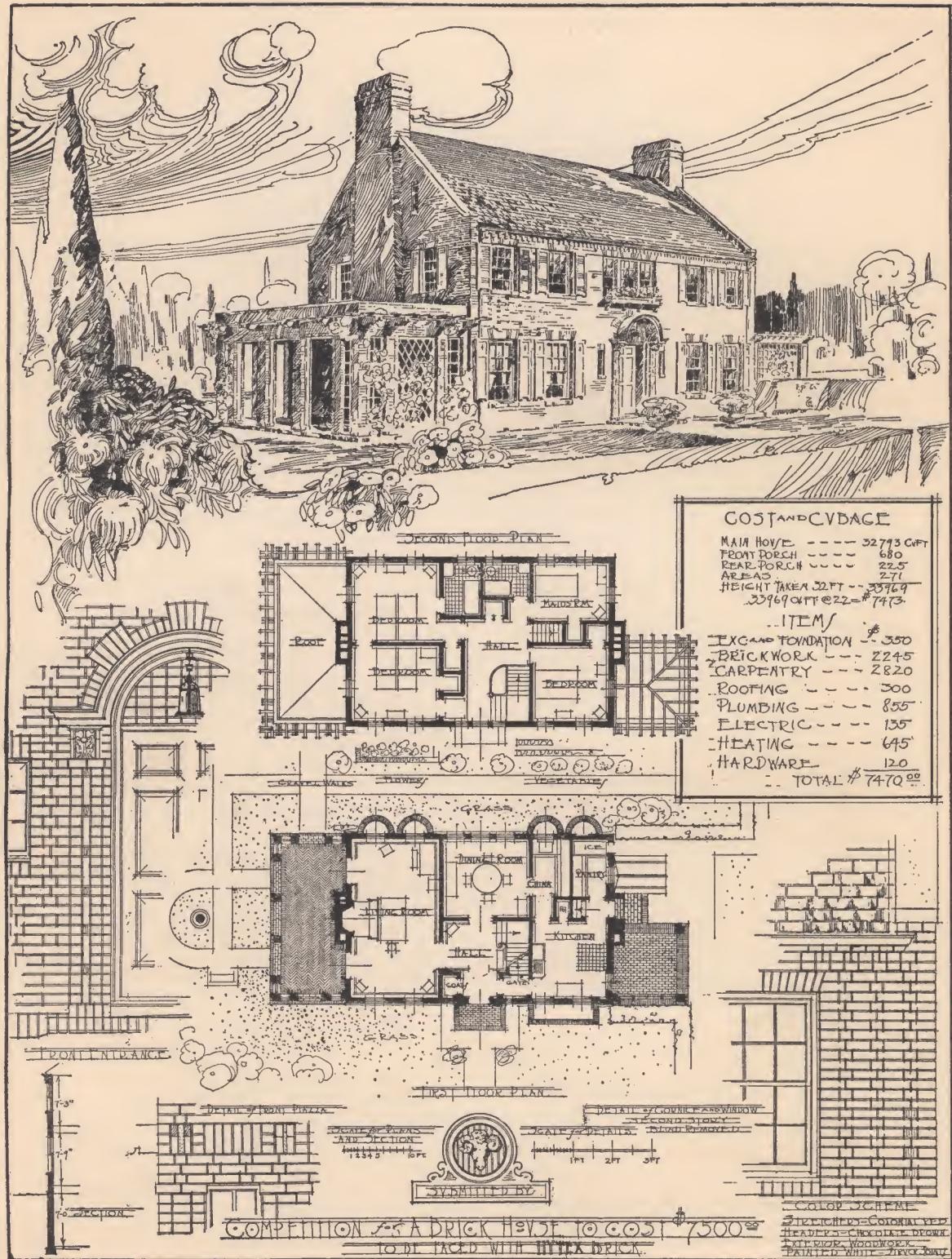
SUBMITTED BY

A BRICK HOUSE TO COST 7500 DOLLARS  
TO BE FACED WITH HY-TEX BRICK.

BRICKBUILDER  
COMPETITION  
FEBRUARY 1914

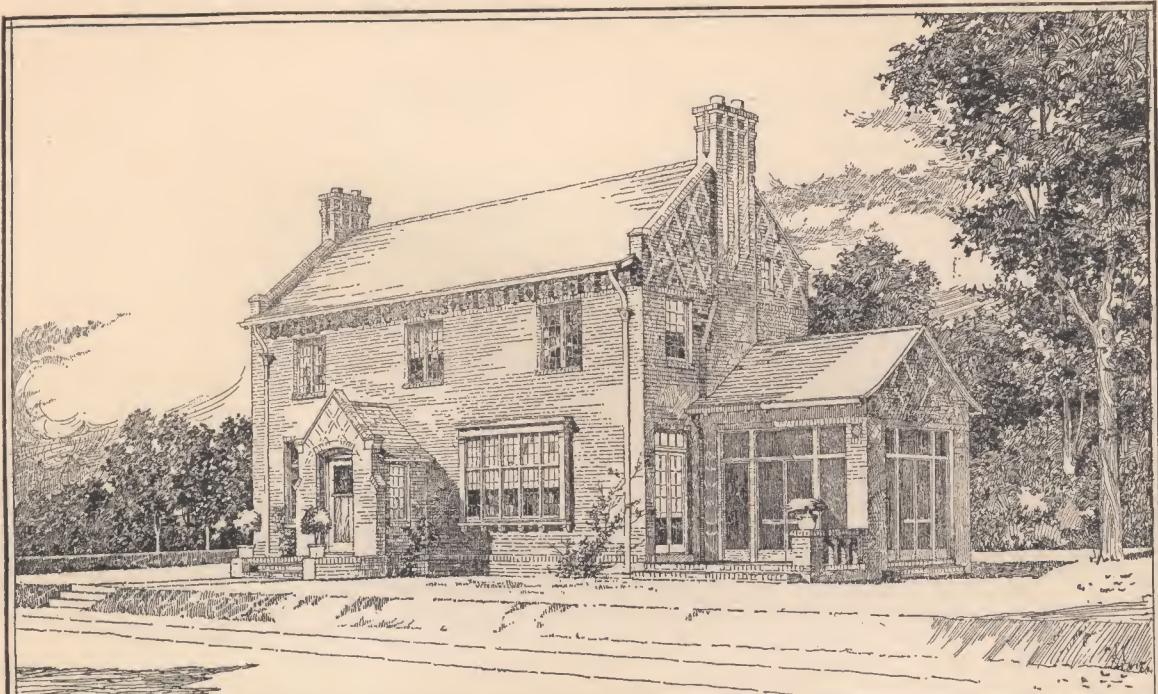
DESIGN BY LOUIS JUSTEMENT  
Box 1191, Waco, Texas.

The Hy-tex House



DESIGN BY P. DONALD HORGAN  
14 Kilby Street, Boston, Mass.

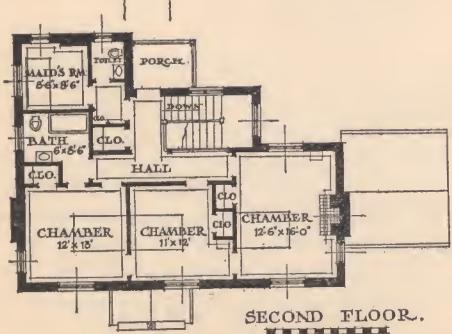
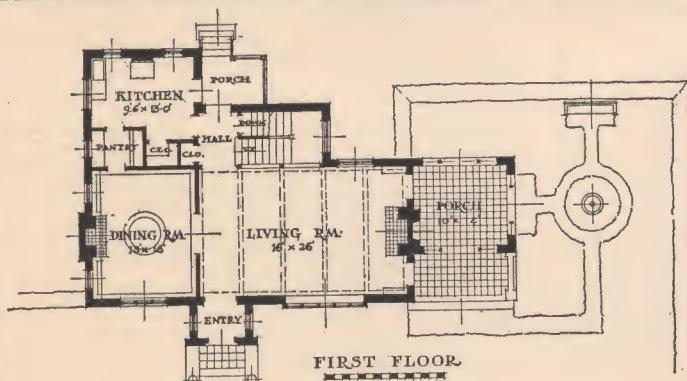
The Hy-tex House



SUBMITTED BY

**COMPETITION FOR A BRICK HOUSE TO COST  
SEVEN THOUSAND FIVE HUNDRED DOLLARS.**

BRICK BUILDER  
COMPETITION



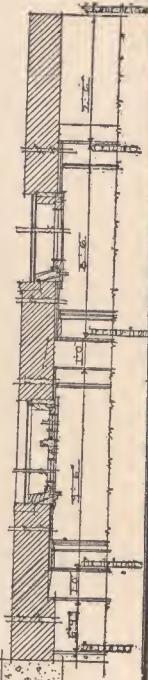
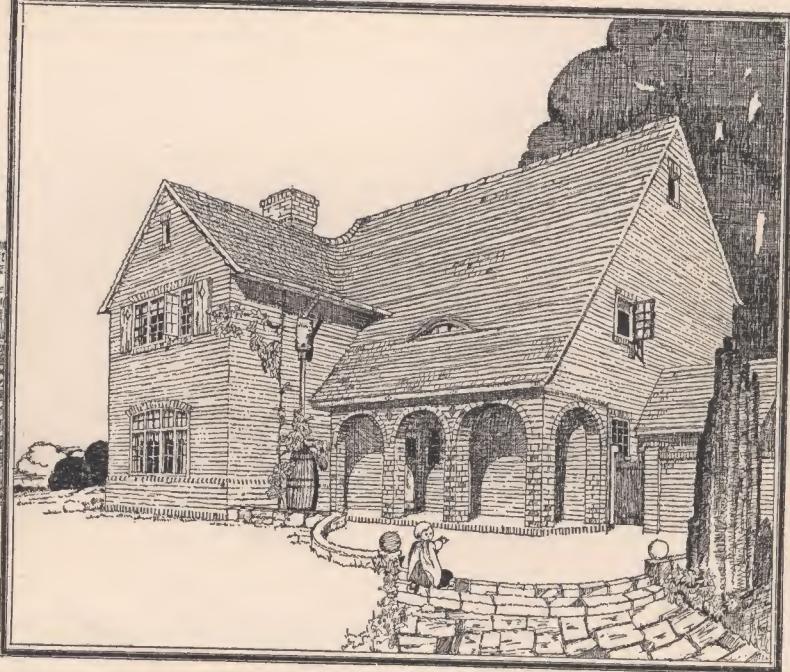
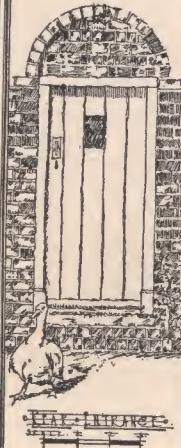
EXTERIOR WALLS FINISHED WITH WIRE CUT MASON FINISH VITRIFIED RED BRICK (KILN RUN); ALL SHADS MIXED HAPHAZARD, GARDEN WALL BOND. DIAPER PATTERN LAID WITH ORDINARY HARD RED BRICK WITH BLACK HEADERS SCATTERED.

CUBIC CONTENTS	
MAIN BLDG.	4'6 x 18 x 32 = 23 904
PORCHES	
REAR BLDG.	15 x 14 x 28 = 6 076
	13 x 12 x 12 = 1872
STAIRS	7 x 16 x 28 = 3 136
	6 x 8 x 10 = 480
VESTIBULE	5 x 8 x 10 = 400
	2352 ÷ 4 = 538
TOTAL CUBAGE	34 054 @ 22" <sup>7/8"</sup> = \$ 7500 <sup>00</sup>
ESTIMATE OF LABOR & MATERIALS	
EXCAVATION	\$ 90.00
PLASTER	\$ 350.00
CONCRETE	450.00
PAINTING & GLAZING	525.00
BRICKWORK	1500.00
HARDWARE	75.00
STEEL	150.00
PLUMBING	610.00
SHEET METAL	100.00
ELECTRIC WORK	100.00
SLATE	425.00
GRANITOID	75.00
LUMBER	550.00
MISCELLANEOUS	150.00
MILL & STAIRS	950.00
CONTRACTOR'S PROFIT	600.00
LABOR	1000.00
TOTAL COST	\$ 7500.00

DESIGN BY E. L. PLEITSCH AND D. STEPHEN, JR.  
408 Board of Education Building, St. Louis, Mo.

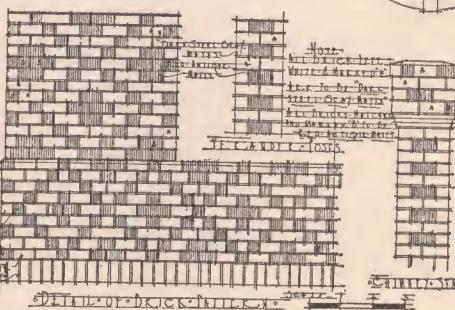
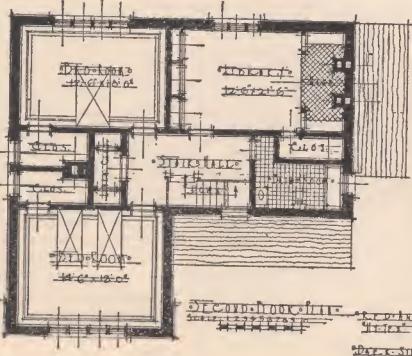
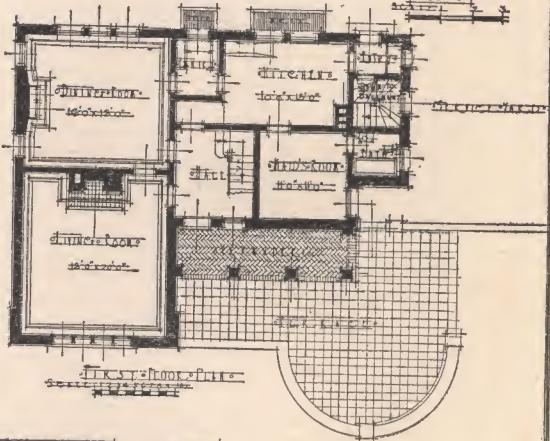
The Hy-tex House

H Y T E X + B R I C K + H O U S E Cost \$15000



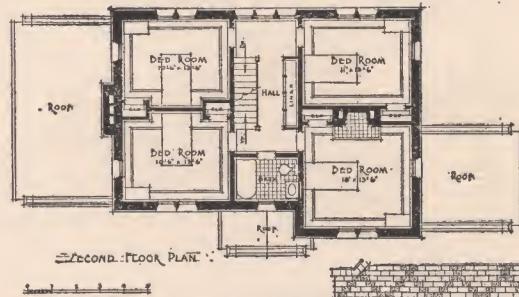
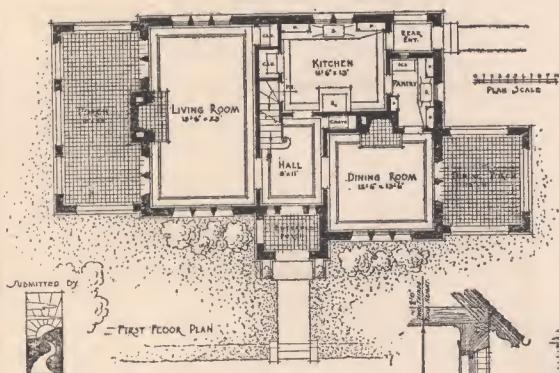
COSTAGE.

• DETACHED •  $22^{\circ}0' \times 23^{\circ}6' \times 6^{\circ}4' = 3440$   
 • MEN. PORTION •  $20^{\circ}0' \times 38^{\circ}0' = 760$   
 • LESSER. PORTION •  $22^{\circ}0' \times 24^{\circ}0' = 528$   
 $1288 \text{ SQ FT } 11 \times 22^{\circ}6' = 28980$   
 • IRON • PIRE •  $22^{\circ}0' \times 6^{\circ}0' \times 9^{\circ}0' \times \frac{1}{2} = 297$   
 • SIDE. WING •  $6^{\circ}0' \times 14^{\circ}0' \times 11^{\circ}0' = 1291$   
 $3407 \text{ FT OF BRICK } \times 22^{\circ} = \$7984.62 \text{ COST.}$



DESIGN BY VINCENT BUCLEY  
197 Coleridge Street, San Francisco, Cal.

The Hy-tex House

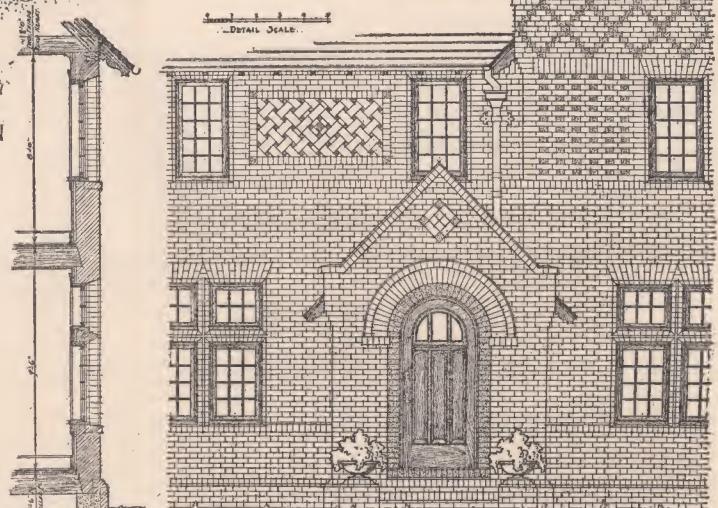


BRICKBUILDER COMPETITION  
FOR A BRICK HOUSE

CUBICAL CONTENTS	
MAIN BUILDING	25 x 36 x 3 = 31800
DINING RM. EXTER.	5 x 16 x 3 = 1440
LIVING RM. PORCH	24 x 11 x 1 1/4 = 726
DINING RM. PORCH	15 x 11 x 1 1/4 = 394
ENTRANCE PORCH	5 1/2 x 9 x 1/4 = 157
TOTAL CUBIC FEET	34049
TOTAL COST AT 22¢	\$7402.78

ITEMS OF COST	
EXCAVATION	150
MASONRY	3600
CARPENTRY	2150
SLATE ROOF	275
HARDWARE	100
TOTAL COST	\$7500

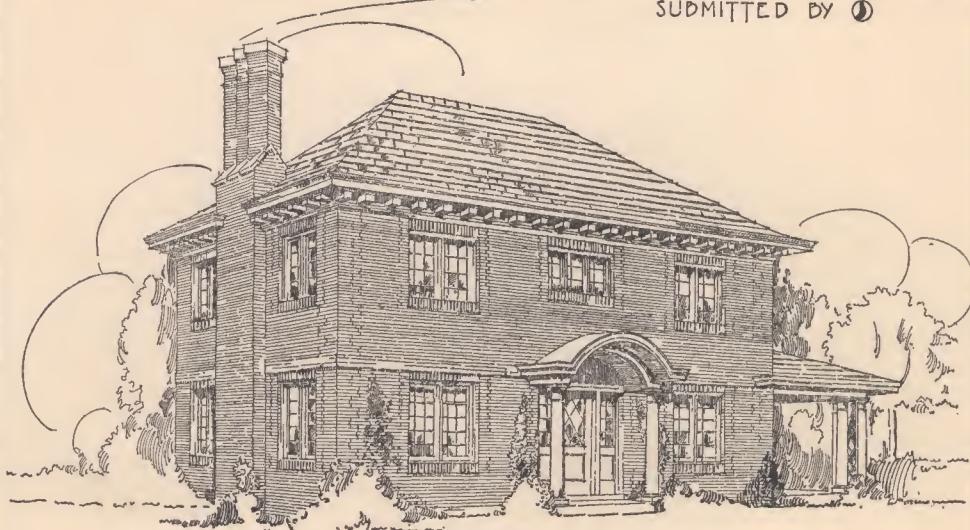


DESIGN BY GEORGE H. SCHWARTZ  
127 India Street, Brooklyn, N. Y.

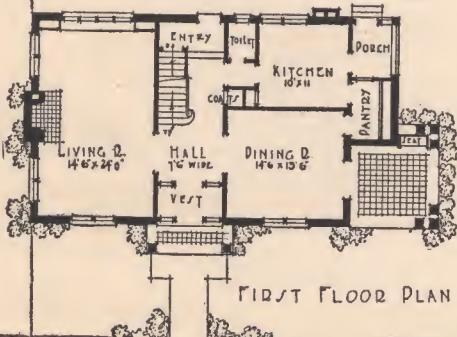
The Hy-tex House

BRICK BUILDER COMPETITION → A BRICK HOUSE TO COST \$7500

SUBMITTED BY [initials]



PERSPECTIVE

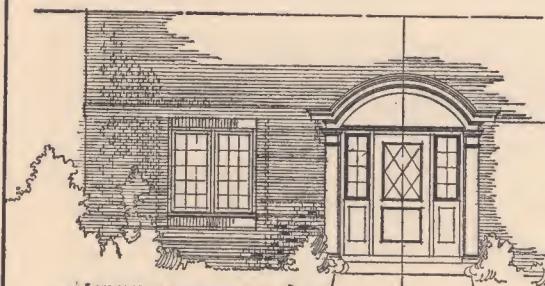


ITEMS OF COST	
EXCAVATIONS	200.00
BRICKWORK	2500.00
CARPENTRY & MILL WORK	2500.00
PLASTERING	350.00
PAINTING & GLAZING	350.00
HEATING & PLUMBING	600.00
WIRING	100.00
SHEET METAL	150.00
CONTRACTORS' PROFIT	700.00
TOTAL	7450.00

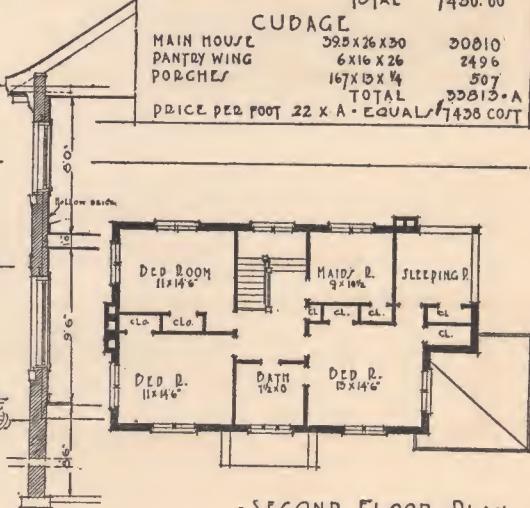
CUDAGE	
MAIN HOUSE	39'5 x 26 x 30
PANTRY WING	6 x 16 x 26
PORCHES	16'7 1/2 x 14 1/2
TOTAL	55812.4

PRICE PER FOOT 22 X A = EQUALS 7450 COST



DETAIL AND WALL SECTION

SCALE FOR DETAILS: 1/8"



SCALE FOR PLANS: 1/8"

DESIGN BY WILLARD OSLER  
341 Trenton Street, Indianapolis, Ind.



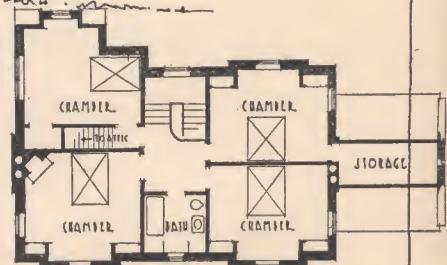
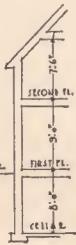
The Hy-tex House



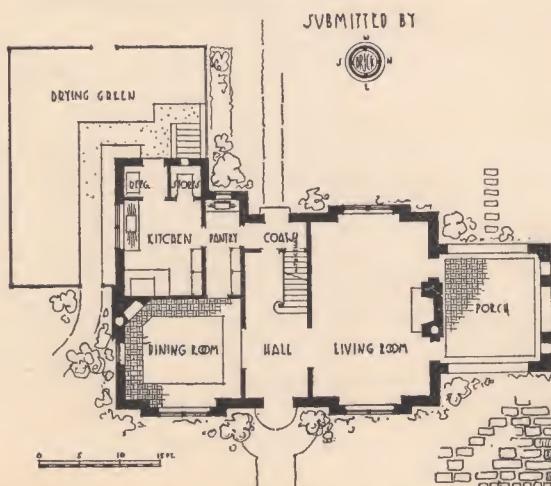
**BRICKBUILDER COMPETITION  
FOR A BRICK HOUSE.**

CUBIC CONTENTS - 33760 CUBIC FEET  
AT 22 CENTS PER FOOT - \$ 7427.20

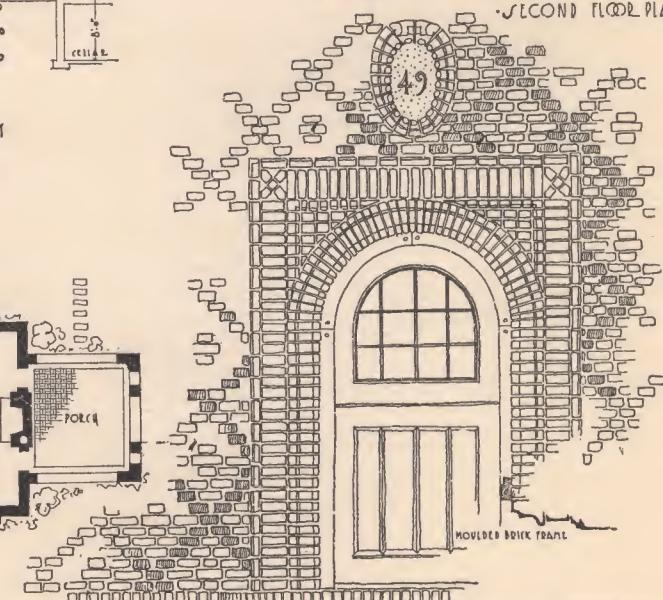
EXCAVATING \$ 150<sup>00</sup> PAINTING 150<sup>00</sup>  
MASONRY 3527<sup>20</sup> HEATING 250<sup>00</sup>  
PLASTERING 350<sup>00</sup> PLUMBING 40<sup>00</sup>  
CARPENTRY 2200<sup>00</sup> ELECTRIC 150<sup>00</sup>  
ROOFING 250<sup>00</sup> TOTAL COST \$ 7427<sup>20</sup>



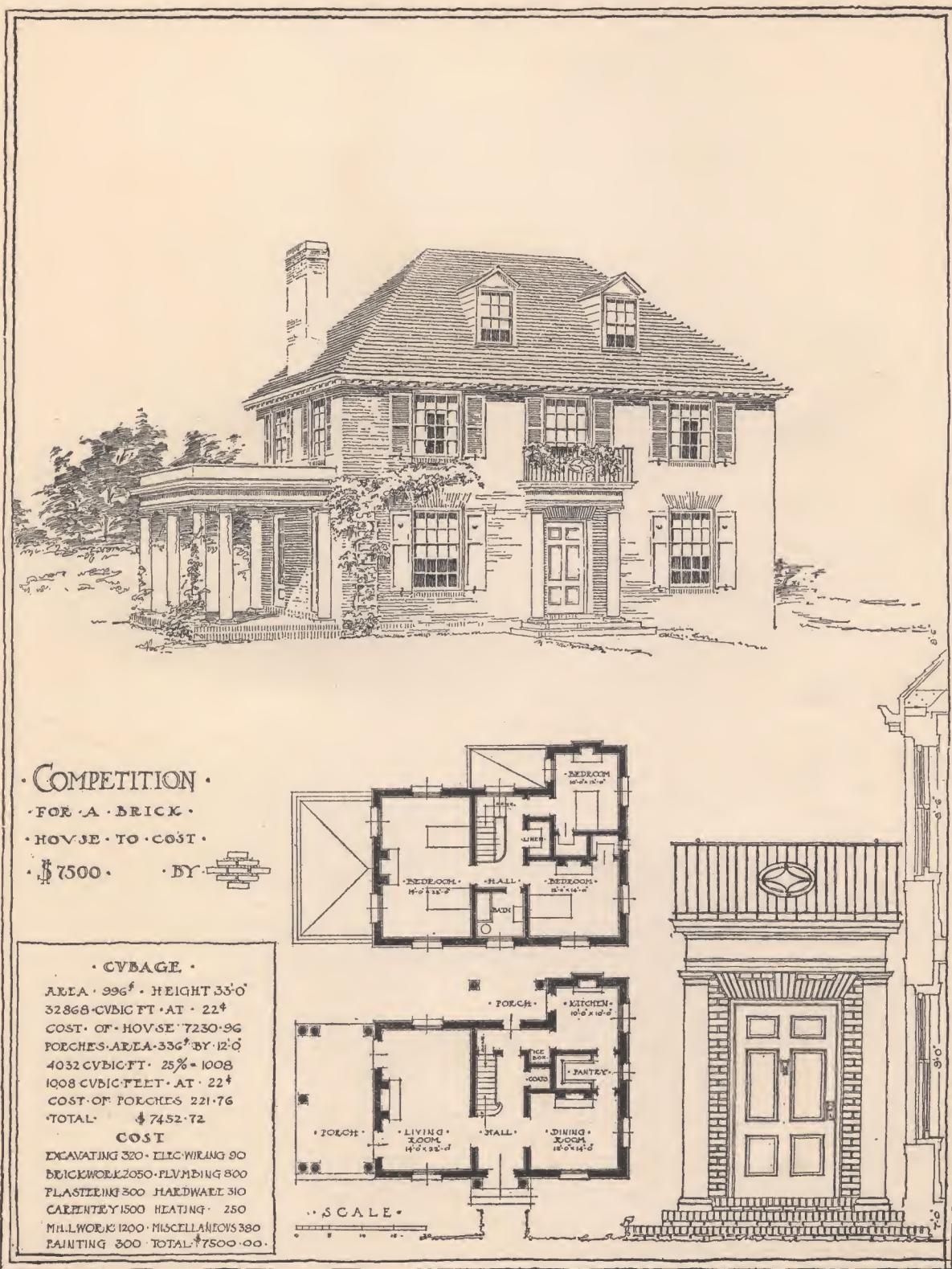
SECOND FLOOR PLAN.



SUBMITTED BY  
*G. A. LICHT*



DESIGN BY GEORGE A. LICHT  
4 East 39th Street, New York, N. Y.

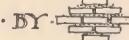


**COMPETITION**

FOR A BRICK

HOUSE TO COST

\$7500.



**CUBAGE**

AREA 996<sup>2</sup> HEIGHT 33'-0"

32868 CUBIC FT AT 22<sup>4</sup>

COST OF HOUSE \$230.96

PORCHES AREA 336<sup>2</sup> BY 12'-0"

4032 CUBIC FT 25% = 1008

1008 CUBIC FEET AT 22<sup>4</sup>

COST OF PORCHES 221.76

TOTAL \$7452.72

**COST**

EXCAVATING 320 ELECTRICAL WIRING 90

BRICKWORK 2050 PLUMBING 800

PLASTERING 300 HARDWARE 310

CARPENTRY 1500 HEATING 250

MILLWORK 1200 MISCELLANEOUS 380

PAINTING 300 TOTAL \$7500.00

The Hy-tex House

**SECOND FLOOR PLAN:**

- BATH: 10'-0" x 13'-0"
- BED RM: 12'-0" x 13'-0"
- BED RM: 12'-0" x 13'-0"
- HALL: 12'-0" x 13'-0"
- ROOM: 12'-0" x 13'-0"
- ROOM: 12'-0" x 13'-0"

**FIRST FLOOR PLAN:**

- LIVING ROOM: 12'-0" x 20'-0"
- KITCHEN: 10'-0" x 13'-0"
- PANTRY: 10'-0" x 10'-0"
- BREAKFAST ROOM: 10'-0" x 10'-0"
- HALL: 10'-0" x 10'-0"
- STAIRS: 10'-0" x 10'-0"
- ENTRANCE PORCH: 10'-0" x 6'-0" x 12'-0"
- KITCHEN PORCH: 6'-0" x 6'-0" x 20'-0"

**EXTERIOR TO BE FACED WITH HY-TEX BOKHARA'S VARIETY, GATED WITH FULL RED RANGE. LAID WITH WIDE PLUSH GREY MORTAR JOINTS. TRIMMINGS, FRAMES AND SASH TO BE IVORY WHITE. BLINDS OLIVE GREEN.**

MAIN BUILDING	=	26598 CU.FT.
KITCHEN WING	=	4836
MAIN PORCH	=	1.040
ENTRANCE PORCH	=	2.85
CUBICAL CONTENTS	=	1.95
COST	=	32954 x 22 <sup>4</sup> = \$7259.88

**SUBMITTED BY**

**COMPETITION FOR A BRICK HOUSE FACED WITH HY-TEX BRICK COST TO BE 7500 DOLLARS -**

DESIGN BY ARTHUR C. TRANTMAN  
742 Seneca Street, Buffalo, N. Y.

## The Function of An Architect

By AYMAR EMBURY II

**T**HREE is certainly no profession, and perhaps no trade, about whose usefulness there exists a wider misapprehension than the profession of architecture. There are, of course, many incompetent architects just as there are many incompetent lawyers and doctors, but the results of the architect's incompetence may be plainly read in his buildings while the incompetence of the other two professions are hidden in the mysteries of the law or of the human body.

A reason for the occasional prejudice against the architect as a necessary evil is misapprehension regarding his true function; and this article is intended to make clear some features about which there exists a doubt.

In the first place, the architect is not a contractor; he does not actually build houses nor hire others to build them for him. His duties are: First, to design the building, make the necessary drawings and write the specifications from which the house is to be built; secondly, to superintend the building; that is, to see that the materials described in the specifications are placed in the positions shown on the drawings. There are, beside these two principal duties of the architect, certain others of a secondary nature which are also necessary during the process of construction.

It is the architect's duty to prepare the necessary contracts in behalf of the owner; and his legal knowledge must be sufficient to safeguard the owner's interests without making the contract unfair to the builder, since a contract that is not fair to all parties concerned will not be upheld in law. He must certify to the amounts due the contractor by the owner as the work proceeds and this means that he must be conversant with the prices of materials and the cost of labor, since over-certification or under-certification may, and often does, result in legal controversy. In addition to these duties the architect is almost always depended upon to act, at least in an advisory capacity, as landscape architect, showing how the house shall be placed upon the lot with the best relation to roads, trees and other surroundings. The direction of paths and the location of shrubbery is very often done under the architect's supervision,

## THE HY-TEX HOUSE OF MODERATE COST

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as it ought always to be. The selection of materials and colors for the decoration of the interiors should be influenced by his advice. It will be seen, then, that the architect's usefulness covers a very considerable field outside his fixed and definite functions.

LET us now consider that part of the work which is more strictly an architect's business and with special reference to the sort of work which he would perform in building one of the houses illustrated in this book. In the first place, the designs here shown are only what are known as sketch designs; that is, a contractor could not build a house from them and secure anything like the effects obtained in the designs without having what are known as "working" drawings, which should be prepared by an architect. Before giving further consideration to drawings and specifications, let us treat of the preliminary steps that need to be taken by the architect in serving the interests of the client who comes to him for a house. It is necessary at first to ascertain approximately the amount the owner wishes to spend on his house and what accommodations he will require. Most of the trouble that develops between architect and client is traceable in nine cases out of ten to the first interview, and the fault is at times chargeable to the architect, at times to the owner—and very often to both. If every owner came to his architect wanting only such a house as could be built for the sum which he has named there would be little or no difficulty, but in too many instances the owner wants just a little bit more than his money will pay for, and the architect's hope is that by some happy slant of fortune he may be able to accomplish what he knows to be well-nigh impossible. It is too often the case that the architect fails to warn his client with sufficient emphasis that he is asking too much. It very often happens that the house wanted at a given cost is possible, if the cheaper materials and simplest form of interior finish, painting and plumbing, are used; and the architect tells his client that the house can be built in this simple manner for the stipulated sum only to find that the word "simple" means one thing to the owner and another to himself. Little words like "simple" and "inexpensive" have a wide variety of meaning. They are comparative and not positive and are liable to open a wide field for controversy. Consequently greater explicitness at the very first interview on the part of both the owner and the architect would

result in harmonious relations in most of the cases where trouble now arises.

An owner really should give all his instructions to the architect in writing, in order that his own interests may at all times be protected. This arrangement is equally advantageous to the architect. A record of instructions given over the telephone should be carefully noted by both parties and confirmed in writing.

PROBABLY most, if not all, of the houses illustrated in this book could be built, and rather well, for the limit of cost given in the competition program—\$7500—in districts where brick and labor are not expensive. I believe, however, that if it were contemplated to build them within twenty miles of the cities of New York or Philadelphia it would be necessary to forego oak floors and tiled bath rooms in order to keep the cost within the limit set. In scaling down the cost of a house, the architect's real problem is to preserve to the owner those features which he considers essential in design and cut out those materials which are not absolutely necessary. It is a well known fact that many clients give their architects as a fixed limit of cost an amount varying from ten to fifty per cent below what they actually expect to spend, in the belief that the architect consciously endeavors to make him spend more than he wants, whereas in fact the opposite is the case. It is a very natural desire for an architect to do all that a client demands, and his eagerness to obtain and hold a commission frequently leads him to promise more than his best judgment tells him can be given. This is manifestly unfair and unnecessary; for, by tactful explanation and by comparison of the proposed house with others of the same size actually built, it can be shown any reasonable client just about what can be built for the amount to be expended.

Now as to the sketches themselves; a simple pencil drawing which may not have taken half an hour to make often represents the result of a week's study of the problem in an endeavor to secure a perfect plan or an unusually attractive elevation, not on paper alone but when built. After these sketches are shown to a client, he may want certain changes made in the plans; he may not entirely like the exterior and suggest certain changes, and these the architect must accomplish without impairing his general scheme or injuring the appearance of the house. Even trivial changes of this kind are

## THE HY-TEX HOUSE OF MODERATE COST

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sometimes very difficult to make. In one case which came under my observation, an owner wanted an additional closet in his own bedroom, and his architect chased that closet around from room to room for three days trying to find some place where it could be put, without making a bump in one corner of some room. He finally decided to make an entirely new plan rather than spoil the house in this comparatively unimportant respect.

When the sketches have been pretty well decided on, the architect proceeds with the working drawings and specifications. These drawings—which are sent out for estimate—are of the several floors at a scale of one quarter inch to the foot, with elevations of the four sides and sometimes a cross section through the house at the same scale, and not infrequently several sheets of larger scale detailed drawings of wainscot, mantels, doorways and such things, which cannot be fully explained by small drawings or by the specifications. These drawings are the most expensive things and the most important that have to be done, since they must be very exact. All dimensions of the wall thickness, the room sizes, and the positions of windows and doors, must be given; roof slopes must be determined and very careful consideration paid, not so much to the drawings themselves, as to the appearance of the building when executed.

The working drawings are deceptive to the client, since they show in only two dimensions what will be executed in three; and lack of comprehension of working drawings is, next to the question of cost, the commonest source of trouble between the owner and the architect. People who are capable of reading plans find practically no extras involved in the construction of the building; they know in advance how things are going to look with somewhat the certainty of an architect. But people who know nothing about reading plans find that rooms which on paper look big enough, in reality are small, and that arrangements of windows which on plan appear to suit their furniture, when built, do not give them the space they require; and changes need to be made which involve extras for which they blame the architect and not themselves.

With the working drawings goes the specification, and the average specification for the construction of a house, such as illustrated in this book, is a little document of from fifteen to twenty thousand words, not one of which can be omitted without giving a contractor a loophole to escape from his just obligations. In these specifications

## THE FUNCTION OF AN ARCHITECT

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must be incorporated every instruction that the owner has given to the architect about the sort of floors and the color of paint, the types of bath tubs, the positions of electric light switches, the materials of which the house is to be built, the kind of kitchen range needed, where mirrors and towel bars are to be placed, and everything of that sort; and an architect must be very alert not to forget what may turn out to be the most desired thing in the house.

Working or scale drawings are made either on tracing cloth or tracing paper. From these, blue prints are made in numbers to supply contractors who are to give an estimate upon the work.

It is inadvisable, in fact unfair, to ask a contractor to bid on work when the owner feels that he will not be acceptable even though the lowest bidder. It is best for all concerned that only those contractors shall be invited to bid who can safely be entrusted to perform the work at the lowest figure submitted.

After estimates have been received, if the lowest one amounts to more than the owner feels himself able to pay, the architect must then proceed with the most difficult and disagreeable part of his entire work, and that is the cutting out of items which can, or must, be spared without impairing either the usefulness of the house or its appearance. In many cases, in fact in the majority of cases, estimates will not exceed the amount the owner is willing to spend and contracts may be signed at once.

Contracts are generally made out in triplicate. One set with specifications is filed with the county clerk to protect the owner against liens which may lie against him if this legal procedure is not followed; one set is kept for the client; and the third is for the contractor. The architect then makes the full size detail drawings, or in some cases details at one-quarter full size, of all parts of the building which require special construction; and, while these details are not as expensive as the contract drawings, they nevertheless are very tedious and costly to make. Probably in a house of the size of those in this book, there would be issued about ten drawings for estimate and about fifteen full size details. A draughtsman would average three days work on each of these. If we assume that he gets four dollars a day (a reasonable price), these drawings would cost the architect about three hundred dollars; and this does not include overhead expenses, such as rent, stenographer, office boy, light, blue printing, materials and such things—nor any allowance for bad debts.

## THE HY-TEX HOUSE OF MODERATE COST

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If the architect is to superintend the construction of the house—in some cases he does and in others he doesn't, depending entirely upon the agreement made with the client—he or his superintendent of works will make at least weekly visits to see that the work is being carried out according to the drawings and specifications. If during these visits he finds that bad work or materials are being employed, it is his duty to order the work done over again in a proper manner. There is usually a clause in specifications which requires that the contractor shall make good any defective work that may become apparent within a year after the completion of the house. It is customary for an architect to visit the house several times after it is occupied for the purpose of ascertaining if there are any defects which are attributable to bad workmanship, and if there are to insist that the contractor do the necessary repairing.

**T**HE foregoing gives a fairly complete idea of what the architect does for his money, and may also show a prospective home builder that the money so spent is well earned. There are, however, two or three other points which should be touched on. First, it should be understood that the architect does not assume financial responsibility either for the cost of a house or for the mistakes made during its construction, unless these are due to negligence on his part. The owner in accepting the plans and specifications, which he does either before or when signing the contract, should see to it that everything that he wants is in the plans and specifications, since his acceptance of them will be held by any court to be proof that the architect has faithfully performed his duty. If anything is omitted from the specifications that the owner has told the architect he wants and has to be put in afterwards as an extra, it does not follow that the owner is paying twice for this item; for, if it had been in the original specifications, the original contract price would have been larger, since contractors make a list of every item to be done, price them, foot the total, and add a percentage or lump sum as a profit. The second point of extreme importance should be the realization by the owner that the architect's services are worth all he charges for them and often prove an actual saving to the owner.

If one were to go direct to a contractor with a book such as this, containing as it does very many beautiful designs, he would find many who would say: "I will build the house you like for so many

dollars." As has been repeatedly demonstrated, however, contractors cannot build houses from drawings like those shown here without the services of an architect for the reason that it requires a man specially trained to execute a house from a drawing. It must be remembered also that some one has to make working drawings, and if it is the contractor he has to include the cost of this work in his estimate, so that the owner does not save this part of the expense in letting the contractor do all the work, nor is he likely to get the same class of house he has in mind.

An owner dealing with a contractor direct, rather than through an architect obtains only the very scantiest sort of a description of how the house is to be built, with the result that the contractor can build in almost any way he sees fit, so long as he complies in a general way with the terms of the contract. Under these conditions, the owner has little chance of recovering where poor materials and workmanship have been employed; moreover, he has no way of finding out if the contractor's price is a fair one or not. On the other hand, if the working drawings and specifications are prepared by an architect, competitive bids may be taken and the lowest price plus the architect's fee will more than likely be much lower than if the work were given directly to a contractor, and in addition the owner will be assured of a well designed, well built house.

**T**HE architect's fee should be among the first things discussed in arranging for a house. It should be made perfectly clear in advance what the architect is to be paid for his work and what work he is to perform, for the reason that different architects charge different prices and prices vary with the amount and kind of services to be rendered. The usual fee ranges from six to ten per cent on the cost of a building. If the architect is a young man with no large amount of business on hand and an inexpensive office to maintain, he will very likely give full services for six per cent on the cost of the building. If he is a man of recognized ability maintaining an expensive office and is engaged upon many large commissions—he will charge a higher fee, and in most cases is worth it.

The architect's fee for a country house is usually paid in three parts: One-fifth of the whole when the sketches are accepted by the client, two-fifths when the estimating drawings and specifications are completed and the balance when the house is finished. If the

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house is an expensive one or one that requires a long time to build the last two-fifths of the commission would probably be divided into several payments. Very often in place of commission an architect agrees upon a fixed sum for his services, and if the owner has any feeling that an architect will try to run the price up to increase his commission, he will be much wiser to settle the fee on a fixed sum basis.

One thing more:—An architect does not as a rule submit sketches “on approval,” any more than a doctor makes a diagnosis without being paid for it if his patient is found to be perfectly healthy, or a lawyer enters into the merits of a case without expecting a retainer; and while there are doubtless many men who will offer to submit sketches on approval, they should be regarded with suspicion.

Since the writer is himself an architect, the questions of the relations between architect and client and of the duties of an architect may have been unduly emphasized from one standpoint and too little from the other. It is assumed, however, that those who read this article will in most cases be “clients” and need no explanation of what their feelings are. What an architect should be expected to do for his money has been shown, as has the fact that his services are not entirely without value. As a matter of fact, an experienced architect is almost always a well informed man. If he has built many houses, he has the collective experience of many house keepers behind him. He must be something of a lawyer; and also a reasonably good business man, so that the accounts between the owner and contractor will be kept in something like order. He must be fully acquainted with the various building trades, such as mason work, carpentry, painting, tinsmithing, plumbing, heating and electric work; and he must also be an artist, able to execute in wood, brick and stone, through the medium of poorly informed and in-artistic mechanics, a beautiful house which in all respects will meet the exacting demands of the owner.

## The Story of Brick

By G. C. MARS

**M**R. EDWARD J. BANKS, field director of the University of Chicago's Babylonian expedition, reports having found brick at Bismaya, in the Euphrates Valley, which are as good as when they were first made four thousand five hundred years before our era, and adds that there are reasons to believe that the art of brickmaking was known and practiced ten thousand years ago.

As an artificially prepared product, brick is the oldest building material known to man. From the earliest pre-historic times, the inhabitants of ancient Sumeria, Chaldea and Egypt built their houses of sun-dried brick; and centuries afterwards when history, as we know it, was just beginning to dawn, their descendants built temples, palaces and ramparts of brick. Ages before Khammurabi had given his celebrated laws to the Babylonians, before Abraham had been called from Ur of the Chaldees to the Land of Promise, or Moses had led the children of Israel out of their Egyptian bondage, the kings of Chaldea and the Pharaohs of Egypt had dwelt in houses made of brick. As to Nebuchadnezzar, King of Babylon, one of the greatest builders that ever lived and the very greatest builder in brick of all time, he is hardly worth mentioning here, as he really belongs to modern times, going back only six centuries before Christ.

The Greeks doubtless learned the art from the Chaldeans, and that too at a very early epoch, for Schliemann in his excavations of ancient Ilium, made famous by the royal battles of Achilles and Hector and celebrated in the immortal lines of Homer, found great platforms and walls built of brick.

And no less than the distinction of its great antiquity, brick can lay claim to the distinction of a world-wide use, even in very early times. For not only can China, India, Persia, Babylonia, Assyria, Egypt, Greece and Rome, in the old world, boast of ancient brick remains, but the Western world, new to its white discoverers in the fifteenth and sixteenth centuries, revealed old civilizations that had long practiced the art of making and building in brick. The Spanish Conquistadores found, among the Incas and Aztecs, houses, temples, palaces and monuments of brick.

But so far as our modern use of brick is concerned, Rome the master builder of antiquity, has been our teacher. It is probable that the Romans learned their brickcraft from the Greeks. At any rate, they carried it to the height of perfection so far as its structural value is concerned. They used extensively a hard and enduring burnt brick in the body of walls which were generally covered with stone or marble slabs or stucco—a practice still followed in Italy.

The manufacture was under government surveillance and the brick bore the name of the maker—and also that of the Consul, from the time of Trajan (98-117 A.D.). The legionaries knew the art and made brick wherever they were stationed, from which fact we can often trace their movements and the dates of their occupancy. From the Euphrates to the Pillars of Hercules and from the Libyan desert to the Firth of Forth, are found the remains—often very extensive—of Roman brickwork.

In the late imperial epoch, the brick came to be made with a finer surface and were freely exposed in courses alternating with stone. It was this practice which doubtless led to the Byzantine style of brickwork which was laid in bands of color, broadly and strongly marked—a style widely employed in ecclesiastical building, and still frequently seen in the Russian churches of today as an inheritance of Byzantine culture.

With the decay of the Roman Empire in the West, the Church took up and carried on the brick tradition in its ecclesiastical structures. In those countries where stone was rare, such as Northern Italy, Southern France, and the low lands of Northern Germany, brick enjoyed during the Middle Ages an extensive use.

It was not, however, until after the Crusaders had stirred the mind of Europe to a new life, preparing the way both for the great Gothic period of architecture in the thirteenth century, and for the industrial activities of the free Communes, that brick entered upon its palmy days and became a natural and popular material for building, in the hands of the great free mason guilds of the period.

In Northern Italy, the brick used were exclusively red, fine examples of which are found in the churches, palaces and public buildings of Siena, Milan and Bologna—sometimes laid, after the old Roman manner, in alternating courses with stone.

But it was especially in the North of Europe that brickwork flourished at this time. The great burgher towns of the Hansa in

Northern Germany and Flanders, growing in wealth and power, vied with each other and spared no expense, in adorning their cities with splendid buildings, both public and private, most of which were in brick—as witness the famous belfry of Bruges, of the thirteenth century, celebrated in the lines of Longfellow; the great Hall at Antwerp, of the fifteenth century; or the Rathaus, of the fifteenth, and the stately Marienkirche, of the thirteenth century, at Lubeck.

Although quite apart from the general current of European life, and whether influenced by their Christian neighbors or their co-religionists of Africa, who drew their inspiration from Byzantine art, the Moors of Spain revealed splendid ability in the handling of brick and employed it with striking effect, as we may see in such noble structures as the Alhambra at Granada and the mosque, now cathedral, of Cordova.

**W**HEN the Renaissance, in the sixteenth century, broke over the Alps into France and Germany, brick practically disappeared from public building in those countries, and did not get back its old medieval prestige until the middle of the last century, when the wonderful advances in the technique of its manufacture revealed its possibilities, especially in Germany, to the builder and architect. In the Low Countries, Holland and England, however, it held its own and even made substantial gains, as in England.

This gain in England is easily explicable when it is remembered that, with the Renaissance in England, brick and its possibilities of manufacture were essentially a rediscovery. In England, as the Roman province of Britannia, brick were made and extensively used for nearly four hundred years until the Legions were recalled at the beginning of the fifth century to protect Rome, trembling before the onrush of the northern invaders. From that time on, until the thirteenth century, the only brick used in England were those taken from the Roman remains. In the time of the first two Edwards (1270-1327), it is probable that the Flemish mode of brickmaking and the style of building pointed gables were introduced into England, but there was no general manufacture and use of brick in that country until the fifteenth century, and then only for important buildings:

In the days of Henry VIII (1509-1547), however, when the Renaissance was beginning to be felt in the Island Kingdom, brick and its uses were brought to a high state of perfection, a fact probably

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due to Henry's encouragement of artisans from Flanders. In the following century, the great London fire, 1666, not only transformed that city from a wooden to a brick town, but gave a great spur, all over England, to the development of the manufacture and use of brick, as well as to its ornamental treatment.

After the Renaissance had run its course, brickwork for a time declined in England, but in the days of Queen Anne and the Georges, or during the 18th century, it regained favor and became the honored medium for the expression of that comfort and dignity which we so often see in the fine old country houses scattered throughout England. It was this style that exercised the great formative influence on our own simpler colonial architecture, both of the North and of the South.

In the early days of the American colonies, small quantities of brick were imported from Holland and England, and doubtless from time to time they were brought to the colonies in Dutch and England bottoms as ballast. But the colonists did not at all depend upon such sources for their supply of brick; for American brick-making, according to the most reliable data, was established at a very early period and was well able to supply the home market.

Davis in his *Practical Treatise on the Manufacture of Brick*—followed by the *Encyclopedia Britannica*—informs us that the first brick house in this country (no longer standing) was erected on Manhattan Island in 1633 by Wouter Van Twiller of Amsterdam, a governor of the Dutch West Indies Company, and that the first brickmaking in the colonies was at New Haven in 1650. The claim made for the Cradock House (still standing) at Medford, Mass., that it was built in 1634 is denied by certain authorities, who attribute it to Peter Tufts and assign the date 1677-80.

So far as the introduction of brickmaking into this country is concerned, the new *International Encyclopedia* is authority for the statement that brick were made in Virginia as early as 1612, which would seem to indicate that brick houses must have been built in Virginia as early as that time, a conjecture confirmed by evidence cited in Bruce's *Economic History of Virginia in the Seventeenth Century*. This earlier date for brickmaking in the colonies is substantiated by the historical studies of Ries & Leighton, who in their *History of the Clay Working Industry in the United States*, give the following localities with their dates: Virginia, 1611; Massachusetts

and New York, 1629; Maine, 1635; North Carolina, 1663; Rhode Island, 1680; Pennsylvania, 1683. And so prosperous had the industry become by the end of the eighteenth century, continue these authorities, that brick were being exported from this country. In 1791, the export of brick amounted to 743,000. From that time on, American brickmaking has followed the natural growth of the country, until today, in point of quantity and quality, it leads the brickmaking industry of the world.

This growth of brick manufacture has exercised a very wholesome and potent influence in furthering a purer and sounder style of domestic architecture which, during the middle of the century, fell into the slough of a bastard classical or Renaissance eclecticism, or of Rococo and Baroque monstrosities.

The Georgian influence, largely the result of the school of such eminent architects as Inigo Jones, Sir Christopher Wren, and Sir William Chambers, made itself felt in the English colonies along our coast, and was adapted to the uses of either the simple Round Head of New England or the more pretentious Cavalier of Virginia. This colonial style presented very worthy types of domestic architecture, the simple merits of which have been widely appreciated in our more modern style of building. During the past decade or two, especially, this simpler style has been freely adopted—and adapted to our needs—or a simple and graceful form of line and curve has been used in creating a style that meets the practical uses of our modern world, as well as the requirements of artistic taste.

**T**HE great variety of beautiful face-brick now manufactured naturally appeals to the architect as offering an opportunity in the wall surface for the exercise of his finest artistic efforts. In his skilful hands, the selection of the bond, the treatment of the mortar joint, and the color tone and texture of the brick, are so many varied and variable elements with which he can weave a fabric of great beauty. The distinction of brickwork is that, by reasons of its numerous units, it is a plastic material, yielding to every touch of the architect. So that the result, like every work of art, has a distinct life, character and individuality of its own, such as no other material, except marble or stone in vast structures, can give. Although rivaling marble or stone in its adaptability to pretentious buildings, brick has the advantage of being peculiarly fitted for the

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architecture of the home. And here it offers not merely the highest artistic merit, but pre-eminently stands for comfort, safety and economy. Once built, a brick house requires no expenditure for the maintenance of its wall surface; it defies the corrosion of the elements; as a product of fire, it scorns conflagration; and offers comfort in all seasons of the year.

Of the manufacturers of face-brick in America, for the quality, quantity and variety of product, the Hydraulic-Press Brick Company holds the leading place. Established in St. Louis, in 1868, it steadily won, by the quality of its product and the efficiency of its service, the approval of the brick world, until today it works numerous clay deposits in ten different states, and keeps its fires burning in twenty-two different plants.

In the main, there are two kinds of brick made by the Hydraulic-Press Brick Company, the dry-pressed and the wire-cut brick, both indicated in the name Hy-tex.

The dry-pressed brick are for the most part made of alluvial or fire clays, first seasoned and then, after being ground to a coarse powder, submitted in the hydraulic machine to a pressure of many tons. Such a machine will turn out from 20,000 to 50,000 brick a day, hard enough, in their green state, to be handled with impunity, the number depending not only on the size of the machine but the nature and condition of the clay. A day or so suffices to dry out the superficial moisture—for it must be understood that “dry-pressed” does not mean absolutely “dry”—when they are ready to be stacked or “set” in the kiln, in number all the way from 50,000 to 600,000, and subjected to a temperature that may rise to 2500 degrees Fahrenheit, for a period of from six to eleven days. They are then said to be burned off, when the kiln is allowed to cool and the brick sorted and piled in sheds, or shipped to the point of operation.

These brick are usually burned in either up-draft or down-draft kilns, although in certain localities the continuous kiln is employed. In up-draft kilns, the flame passes directly up through the brick from the bottom to the top of the kiln. Down-draft kilns are so contrived, by means of a bag wall, that the flame is prevented from striking the brick until it has first reached the top of the kiln, when it pours down through the brick to the flues. In the continuous kiln, the flame is drawn horizontally through the brick mass. The way in which the brick are “set” and the method of burning result in

producing various effects, so that various kinds of brick are produced in the same kiln—known when taken promiscuously as the kiln-run. It is this hydraulically pressed brick that puts the “Hy” in Hy-tex.

The wire-cut brick are made in an entirely different way and usually of a different material. Instead of clay, shale for the most part is used which, when chemically considered, is indeed clay but differs from it greatly in physical constitution. Shale is a clay which has geologically been subjected to such pressure that it has become very hard and has reached the consistency of soft stone, just short of the laminated condition of slate. Shale when found in deep deposits is mined very much as soft coal, and is approached either by drifts or vertical shafts.

For brickmaking, it is crushed and reduced to the consistency of stiff mud—hence the term stiff-mud brick—when it is run through a machine, terminating in a die, from which it is forced upon a long table in the form of a rectangular strip or ribbon, with a cross section slightly greater than that of the standard brick—to allow for shrinkage—and is cut into proper lengths or widths by fine wires revolved as the diameters of a wheel. These machines can turn out all the way from 40,000 to 100,000 brick a day, and these, after being dried, are set in the kiln and burned in the same manner as the pressed brick.

In case face-brick of a certain variety are wanted, the stiff-mud ribbon, which is smooth as it issues from the machine, may be left smooth, or scraped with a wire to produce a rough or matt surface. This roughening of the mud ribbon, in various ways, gives a variety of pleasing effects to the finished brick surface, which has become very popular in recent years among architects and builders. Although every kind of brick, rough or smooth, has a surface texture of its own, it is these artificially roughened, or matt, brick to which the name texture, in one form or another, is usually applied—and they are responsible for putting the “tex” in Hy-tex.

**T**HE Hydraulic-Press Brick Company justly prides itself on a third kind of brick, which is the finest and most expensive brick on the market, although the most economical when its durability and perfect finish are taken into consideration. They are the enameled or Hy-namel brick. For a number of years the Hydraulic-Press Brick Company bent its resources on producing an enameled

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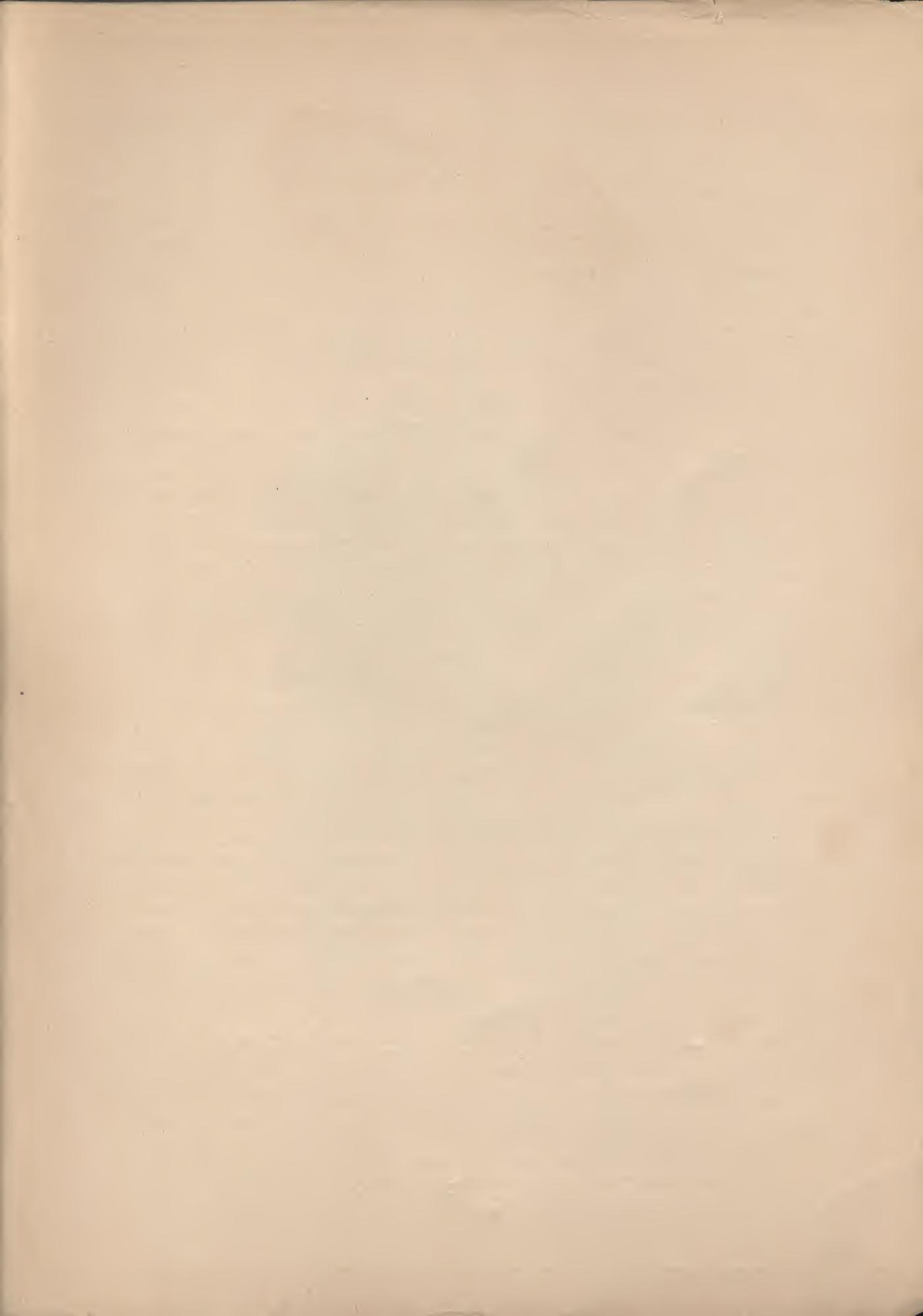
brick that could compete with the fine imported English variety. As in many like cases, repeated experiment almost ended in despair; but persistence won the day, and a brick was finally produced that not only equaled the imported competitor, but surpassed it.

The Hy-namel brick stands unrivaled in the beauty and durability of its enameled surface. That it can be offered as neither scaling, crazing, or discoloring, is due to the thorough and skilful method of its manufacture. The dry-pressed brick is first prepared as a thoroughly fired biscuit. It is then treated with the enamel finish and burned again, much as fine porcelain is burned. The trouble taken is more than repaid by the satisfaction it gives the manufacturer and the service it renders the builder. So sure is the Company of the entire soundness of these brick, that it guarantees their durability and freedom from defect.

Closely allied to Hy-namel are the Porcelain and Salt Glaze varieties. To secure the Porcelain surface, the brick is mechanically treated with a preparation which is thoroughly burned into the clay, producing color effects that run through a beautiful range of grays. The Salt Glaze is secured in the kiln during the process of burning and is a smooth impervious surface admirably suited to meet the requirements of sanitary construction. But while the Porcelain and Salt Glaze brick approach in appearance and function the Hy-namel, they belong in reality to the class of Hy-tex brick.

By no means the least advantage in dealing with the Hydraulic-Press Brick Company is its entire responsibility. Well-nigh fifty years of operation has not only put it in the forefront of the face-brick manufacturers of the world, but gives it the capacity to meet with prompt efficiency every demand, no matter how large, made upon it. Hy-tex brick are found in thousands of modest homes, small stores, and little churches and schools all over our country; but they are also found in thousands of palatial residences, university buildings, great churches and schools, lodges and temples, towering sky-scrappers, and public buildings.

There is, however, no problem of building that comes so near to a man's heart—or to his purse—as the problem of a home, and the man who is thinking of building a home cannot afford, viewed from the standpoint of real economy, comfort, fire-safety or beauty, to proceed until he familiarizes himself with the merits of Hy-tex.



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A—Build your home the way you want it, and do not be compelled to take a house the way the landlord wants it.

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